A bibliometric analysis of the most cited articles about squamous cell carcinoma of the mouth, lips, and oropharynx

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Objectives. To identify the top cited articles about squamous cell carcinoma of the mouth, lips, and oropharynx.
Study Design. The Web of Science database was searched for the 100 most cited articles using the algorithm "Oral cancer" OR "Mouth cancer" OR "Oral squamous cell carcinoma" OR "oropharyngeal carcinoma" OR "oropharynx squamous cell carcinoma" OR "lip cancer" OR "lip squamous cell carcinoma." The search was conducted independently by 2 researchers, and the characteristics of the most cited articles were analyzed.
Results. The most cited articles received a combined total of 38,215 citations. Citation rates ranged from 191 to 2062. The earliest article was published in 1984 and the latest in 2013, but most articles (n = 69) were published in the period between 2000–2010. Articles were published in 46 different journals and were cited on average 33.2 times per year. Articles were originated from 19 different countries, but there was a predominance of articles from United States. Narrative reviews and experimental studies were the most common types among the 100 most cited articles.
Conclusions. Etiology and risk factors were the most commonly represented topic in the list of the 100 most cited articles. Narrative reviews and experimental studies are the most common types of studies among the top cited articles. (Oral Surg Oral Med Oral Pathol Oral Radiol 2019;128:25–32)

Oral cancer is a global health issue. It has been estimated that oral cancer is responsible for more than half a million incident cases and more than 200,000 deaths in 2012.[1] The incidence of oral cancer is expected to rise to 856,000 cases by the year 2035.[2]

The term *oral cancer* is rather a general term that includes 3 main anatomic subsites; the lips, mouth, and oropharynx. Although the majority of cancers arising from these 3 subsites are squamous cell carcinoma, they have different major etiologic factors (ultraviolet exposure for lip cancer; tobacco, alcohol, and areca nut chewing for mouth cancer; and human papillomavirus (HPV) infection for oropharyngeal cancer). Furthermore, cancers arising from different anatomic subsites exhibit different biological behavior and different prognoses and management.[3]

Research on oral cancer has witnessed significant development over the past few decades, reflected by the increasing number of publications related to this field. Oral cancer–specific and –dedicated journals are few, but articles related to oral cancer can be found in many different journals and across many different specialties because of its multidisciplinary nature and the diversity of related topics and methods.

The importance of a research article is often measured by the number of times it has been cited by other authors.[4] It has been speculated that the number of citations an article receives may express the capacity of that article to influence clinical practice, direct future research, and serve as a foundation for new methods, procedures, and concepts.[5-9]

Bibliometrics is a statistics-based analysis of written publications. It is often used in the fields of library and information science but is increasingly accepted in medical literature to identify influential papers in a particular field. In clinical sense, it can help clinicians to identify the most influential articles in their field of practice and appraise clinical issues that can generate research interest. Furthermore, the most influential papers can be used as a potential "reading list" of key, influential papers in a particular field. Citation analysis is the field of bibliometrics that uses citation data to quantify the impact of a research article as illustrated by the number of citations it receives over time.[4-10] Although the value of citation rates, as a measure of research quality, has been debated, analysis of citation frequency can be valuable in identifying research interests, important issues, and discoveries within a scientific field.[10-12]

The Institute of Scientific Information, established in 1945, contains complete bibliographic information of more than 10,000 international journals across 150

Statement of Clinical Relevance

Among the 100 most cited Web of Science articles on cancer of the mouth, lips, and oropharynx, the most common topics addressed were etiology and risk factors, including human papillomavirus. Narrative reviews and experimental studies were well-represented study types.

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scientific disciplines.[13] This platform for bibliometrics analysis has been used to identify characteristics of the most cited articles in different health care disciplines.[7,14-17] Until now, there have been no studies on the most cited articles in the field of oral cancer. The purpose of the present study therefore is to identify and analyze the 100 most cited articles on oral cancer, including lips, mouth, and oropharynx, to gain insight into the characteristics of influential publications in this field.

MATERIALS AND METHODS

Ethical approval or patient permission was not sought because the present study did not use clinical information.

Articles search and selection

The database Web of Science was searched on March 26, 2018 to retrieve the 100 most cited articles in the field of oral cancer using the key words "Oral cancer" OR "Mouth cancer" OR "Oral squamous cell carcinoma" OR "oropharyngeal carcinoma" OR "oropharynx squamous cell carcinoma" OR "lip cancer" OR "lip squamous cell carcinoma." No filters were applied to the search in terms of subject category, journal, study design, language, or publication date. Titles and abstracts were initially screened to exclude irrelevant articles, and only those articles focused on any aspect related to oral cancer (mouth, lip, and oropharynx) were included. The search was extended until 100 articles were included. The search and selection of articles were performed independently by 2 authors (Y.H. and T.Q.). All results were cross-checked, and whenever there was a discrepancy, a consensus decision was reached after reading the full text of articles in questions. The overall interobserver agreement calculated as κ score was 0.72.

Data extraction and analysis

The following information was extracted from the 100 selected articles: title, authors' affiliation, total number of citation and citation ranking, year of publication, journal of publication, and the 5-year journal impact factor according to the Journal Citation Report. The country of origin was defined by the address provided for first author. The citable time for each article was defined as the current year of the project (2018) minus the year of publication of the article, and the citation density for each article was calculated by dividing the total number of citations over the citable time.[18] Included articles were classified according to type of study based on the pyramid of evidence as described by the Oxford Centre for Evidence-Based Medicine in the following categories: systematic reviews and meta-analyses, randomized controlled trials, cohort studies, case-control studies, cross-sectional surveys, case reports and case series, narrative reviews, and animal and in vitro studies.[19] Furthermore, included articles were also classified according to their main research domain into the following categories: prognosis and outcome, etiology and risk factors, epidemiology, treatment and quality of life, diagnosis and clinical presentations, and molecular mechanisms and genetics.

Descriptive statistics were generated and data were analyzed using the Mann-Whitney test, and statistical significance was set at $P < .05$. Correlation was tested using Pearson's correlation coefficient.

RESULTS

The initial search generated 22,903 articles. The 100 most cited articles on oral cancer (Table S1) were cited a combined total of 38 215 times. The top cited article was "Human papilloma virus and survival of patients with oropharyngeal cancer," published in *The New England Journal of Medicine* in 2010, which has been cited 2062 times. The 100th most cited article was "2nd cancers following oral and pharyngeal cancers-roles of tobacco and alcohol" published in *The Journal of National Cancer Institute* in 1994, which has been cited 191 times.

The earliest article was published in 1984 and the latest in 2013, but most articles (n = 69) were published in the period between 2000−2010 (Figure 1). There was no correlation between the number of citations and the time since publication (i.e., citable time) ($r = -0.09$). More than half of the articles (n = 57) were originated from North America, followed by Europe (n = 29), Asia (n = 12), and South America (n = 2).

Articles were published in 46 different journals. Journals with the largest number of the articles cited were *Clinical Cancer Research*, the *Journal of National Cancer Institute*, and *Oral Oncology* (8 articles each), followed by *Cancer* and *International Journal of Cancer* (6 articles each), and *Journal of Oral Pathology and Medicine* and *The New England Journal of Medicine* (5 articles each). Overall, 57 articles appeared in cancer-related journals and 11 articles appeared in dentistry journals. The rest of the articles were published in general medical journals (n = 7), science journals (n = 7), otolaryngology-related journals (n = 4), surgery journals (n = 3), and other journals (n = 11) (Table I). The 5-year impact factor of journals that published the 100 most cited articles ranged from 1.4 to 160.2 (mean = 13.3 ± 20.9). There was a weak correlation between the number of citations and the impact factor of the publishing journal ($r = 0.37$).

Authors of the top cited articles had variable specialties and affiliations, including epidemiology and biostatistics (n = 28), oncology (n = 20), dentistry and oral medicine (n = 15), surgery (n = 12), pathology (n = 8), biology (n = 3), chemistry (n = 3), bioengineering

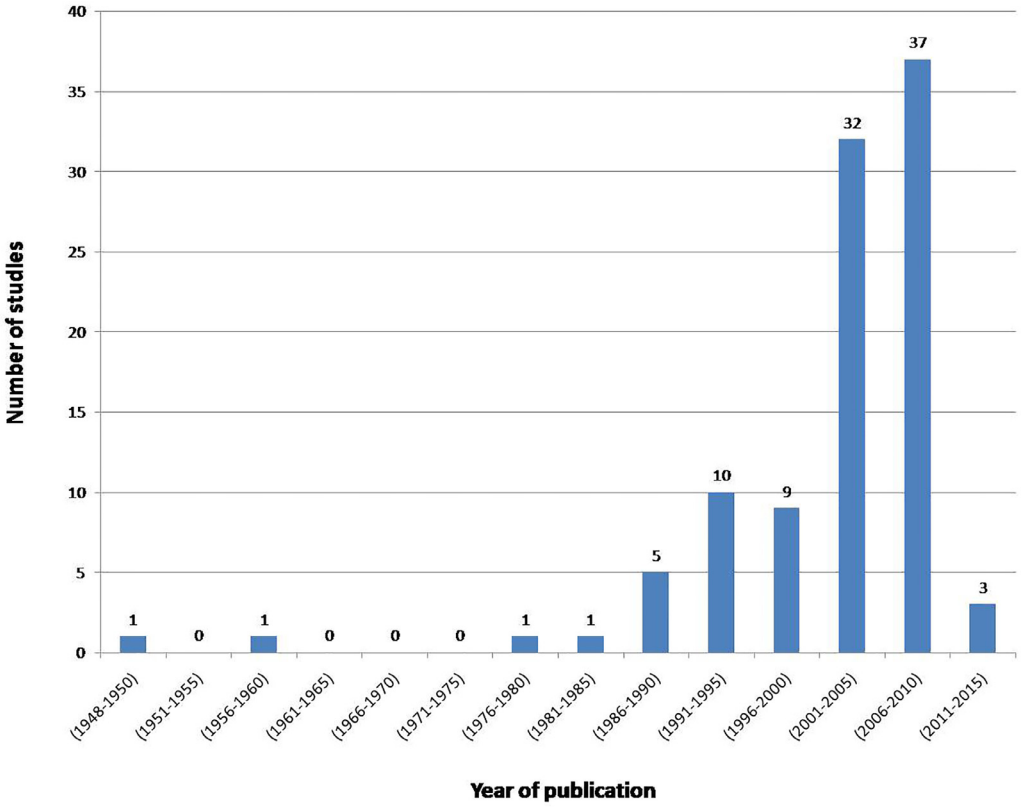

Fig. 1. Time-pattern distribution of the 100 most cited articles on oral cancer.

(n = 3), radiology (n = 2), pharmacology (n = 1), dermatology (n = 1), genetics (n = 1), anatomy (n = 1), laser science (n = 1), and medicine (n = 1).

Among the 100 most cited articles, the most common study types were narrative reviews (n = 25) and experimental studies (n = 25). The remaining articles were cohort studies (n = 19), case-control studies (n = 19), systematic reviews (n = 5), case series (n = 3), randomized controlled trials (n = 2), and cross-sectional surveys (n = 1). Research domains of the 100 most cited articles varied, with the most common being on etiology and risk factors (n = 37) (Figure 2). Among the 37 articles focused on etiology and risk factors, HPV was the most commonly discussed topic (n = 21), followed by smoking and alcohol (n = 8), smokeless tobacco, snuff dipping, and betel chewing (n = 6), and others, including diet, ultraviolet exposure, and age (n = 2). Similarly, HPV was the most commonly discussed prognostic factor (n = 7) among the 15 articles focused on prognosis and outcome. A breakdown of main topics and the most cited articles in each research domain are presented in Table II.

The mean citation density of the 100 most cited articles was 33.2 citations per year (range 6.2−294.5 citations per year). The article with the highest citation density was "Human papilloma virus and survival of patients with oropharyngeal cancer" published in *The New England Journal of Medicine* in 2010, which has been cited on average 294.5 times per year. There was a strong positive correlation between citation density and the total number of citations ($r = 0.91$), but there was a weak correlation between citation density and the impact factor of the publishing journal ($r = 0.29$). The citation density and the total number of citations did not differ significantly among articles of different designs or among articles of different research domains ($P > .05$).

DISCUSSION

The number of citations that an article receives reflects its recognition by the scientific community and its potential to influence practice and future research. The present study identified and analyzed the characteristics of the most cited articles in the field of oral cancer to enable researchers to identify articles, authors, and institutions that have contributed to progress of oral cancer research and to help the scientific community to identify key concepts and build new projects based on these concepts.

The choice to include 100 articles in this bibliometric analysis was arbitrary but is in keeping with the majority of studies analyzing the citation demographic characteristics in other disciplines.[7,14-17,20-22] Citation rates vary among different disciplines depending on the nature of

Table I. List of journals that published the most cited articles

Journal	*No. of publications*	*Impact factor*
Clinical Cancer Research	8	10.19
Journal of the National Cancer Institute	8	11.23
Oral Oncology	8	4.63
Cancer	6	6.53
International Journal of Cancer	6	7.36
Journal of Oral Pathology and Medicine	5	2.23
The New England Journal of Medicine	5	79.25
Cancer Research	4	9.13
Journal of Clinical Oncology	4	26.30
Journal of Dental Research	3	5.38
Cancer Epidemiology, Biomarkers & Prevention	2	4.55
Head & Neck	2	2.47
The Lancet Oncology	2	36.41
Lancet	2	39.20
Nano Letters	2	12.08
Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, Endodontics	2	1.71
Proceedings of the National Academy of Sciences of the United States of America	2	9.38
ACS Nano	1	13.70
The American Journal of Pathology	1	4.06
Surgery	1	3.57
Analytical Chemistry	1	6.04
Bioconjugate Chemistry	1	4.48
British Journal of Cancer	1	5.92
CA: A Cancer Journal for Clinicians	1	244.58
Cancer Cell	1	22.84
Cancer Letters	1	6.49
Carcinogenesis	1	5.07
Clinical Otolaryngology	1	2.69
International Journal of Radiation Oncology, Biology, Physics	1	5.55
Journal of the American Academy of Dermatology	1	6.89
Journal of the American Dental Association	1	2.48
The Journal of Biological Chemistry	1	4.01
The Journal of Clinical Investigation	1	13.25
Journal of Clinical Virology	1	3.10
The Journal of Infectious Diseases	1	5.18
The Laryngoscope	1	2.44
Metabolomics	1	3.51
Molecular Cancer Research	1	4.59
Molecular Cancer	1	7.77
Mutagenesis	1	2.84
Nature Methods	1	26.91
Oncogene	1	6.85
Plastic and Reconstructive Surgery	1	3.84
Radiology	1	7.29
Respirology	1	4.40
Surgery	1	3.57

the specialty and the number of involved researchers. The most cited articles on oral cancer were cited between 191−2062 times; this is similar to citation rates reported in other cancers, including stomach (299−2893), spine (120−1164), and skin (100−2009), but lower than citation rates reported in colorectal cancer (989−7850).[21-24]

Not surprisingly, the 100 most cited articles on oral cancer were written by authors in a variety of specialties and were published in 46 different journals reflecting the multidisciplinary nature of oral cancer research. Interestingly, the most cited articles in oral cancer were published in journals that are not necessarily dedicated to oral cancer. This can be attributed to the small number of journals dedicated to oral cancer but might also reflect a trend among researchers to publish influential articles in high-impact journals directed to a broader audience of cancer researchers.

As with many "most cited" studies in other fields, our study found that the cited articles in oral cancer originated predominantly in United States. This can be explained by the large size of the American scientific community and higher research budgets.[8] It is of note, however, that work from 19 other countries also contributed to the list of the 100 most cited

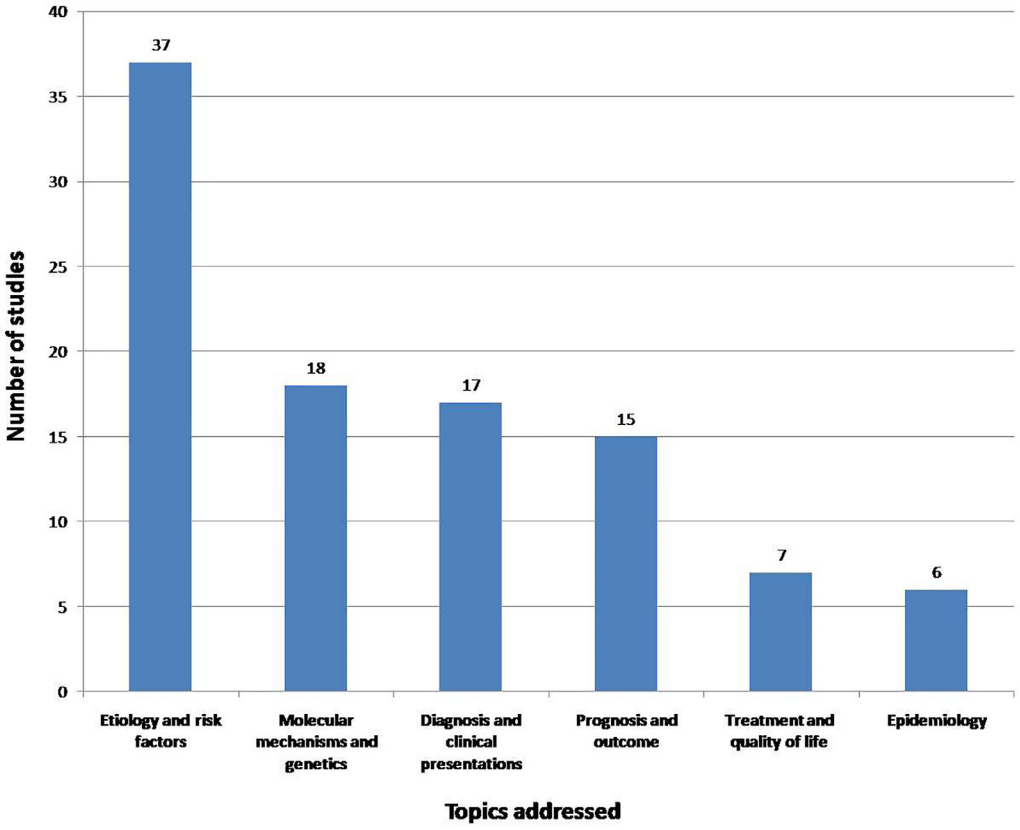

Fig. 2. Research domains among the 100 most cited articles on oral cancer.

articles. Importantly, there was a noticeable lack of multicenter studies in the 100 articles selected, indicating that there is a need to increase the international collaboration in the field of oral cancer research.

The 100 most cited articles on oral cancer research were dispersed across different domains including diagnosis, etiology and risk factors, molecular mechanisms and genetics, prognosis and outcome, and treatment and quality of life. The greatest number of highly cited papers on oral cancer appeared to concern

Table II. A breakdown of main topics and the most cited articles in each research domain

Research domain	*No. of articles*	*Mean no. of citations (range)*	*Most cited article*
Etiology and risk factors	37	395.2 (191−1350)	D'Souza G, Kreimer AR, Viscidi R, et al. Case-control study of human papillomavirus and oropharyngeal cancer. *N Engl J Med.* 2007;356:1944-1956.
Molecular mechanisms and genetics	18	308.3 (193−704)	Braakhuis BJ, Tabor MP, Kummer JA, Leemans CR, Brakenhoff RH. A genetic explanation of Slaughter's concept of field cancerization: evidence and clinical implications. *Cancer Res.* 2003;63:1727-1730.
Diagnosis and clinical presentations	17	352.6 (204−1163)	El-Sayed IH, Huang X, El-Sayed MA. Surface plasmon resonance scattering and absorption of anti-EGFR antibody conjugated gold nanoparticles in cancer diagnostics: Applications in oral cancer. *Nano Lett.* 2005;5:829-834.
Prognosis and outcome	15	468.6 (192−2062)	Ang KK, Harris J, Wheeler R, et al. Human papillomavirus and survival of patients with oropharyngeal cancer. *N Engl J Med.* 2010;363:24-35.
Treatment and quality of life	7	389.8 (210−704)	Hong WK, Endicott J, Itri LM, et al. 13-cis-retinoic acid in the treatment of oral leukoplakia. *N Engl J Med.* 1986;315:1501-1505.
Epidemiology	6	371.3 (211−910)	Warnakulasuriya S. Global epidemiology of oral and oropharyngeal cancer. *Oral Oncol.* 2009;45:309-316.

etiology and risk factors, with 37 of the 100 cited papers covering these areas. Interestingly, HPV was the most commonly addressed topic among articles focused on etiology and risk factors, reflecting the growing importance of HPV as an established risk factor for some oral cancers particularly among younger patients from the developed world.[25] An interesting finding in our study is that articles about betel chewing, areca nut, and smokeless tobacco, as risk factors for oral cancer, were uncommon among the most cited articles despite the fact that these are the main risk factors in parts of the world where oral cancer is most prevalent (e.g., Southeast Asia).[1] The reasons articles about betel chewing and smokeless tobacco, as risk factors, were not common among the list of 100 most cited articles might be related to the fact that the vast majority of included articles were originated from the United States and European countries, where other risk factors, particularly HPV, smoking and alcohol, are more relevant.[3] Also, this finding might be related to the large size of the American and European scientific communities and the higher research budget compared with other parts of the world. Our findings do not necessarily mean that good quality research about other risk factors, including betel chewing, smokeless tobacco, and areca nut, was not commonly conducted; it rather may simply imply that such research has not been cited as many times as research on other risk factors. In fact, there were only 8 articles originating from Southeast Asia (2 articles from India and 6 articles from Taiwan). Of these 8 articles, 4 addressed issues related to etiology of oral cancer; interestingly, all 4 articles discussed smokeless tobacco and areca nut and betel chewing. Along the same lines, ultraviolet exposure, as a risk factor for oral (i.e., lip) cancer, was barely represented in the list of 100 articles. The reasons for this poor representation might be related to the small size of scientific community working on this topic, and possibly to the relatively restricted distribution of lip cancer to countries with appreciable rates of skin cancer related to high ultraviolet exposure.[1]

Experimental studies focusing on molecular mechanisms and signaling pathways involved in oral cancer were well represented in the list of cited articles with 18 papers of the top 100 influential papers covering these areas. Although results generated from experimental studies offer a low level of evidence, these studies are particularly important because they generate ideas and information necessary to perform animal studies and consequently clinical trials. In addition, the integration of knowledge from basic research into clinical practice offers the potential to address major clinical issues.

The 5-year survival rate of oral cancer is generally poor, with figures around 50% often quoted; this has been attributed, at least in part, to delayed presentation and late diagnosis.[26-28] Seventeen of the 100 most cited articles on oral cancer addressed issues related to diagnosis. Among these, there was a predominance of studies describing the use of salivary biomarkers and nanotechnology-based techniques as novel methods for early detection of oral cancer, indicating that significant efforts have been directed toward the development of novel diagnostic techniques. Interestingly, treatment was represented in only 7 of the 100 most cited articles on oral cancer; this might be a reflection of the relatively small literature available on this topic or the small number of investigators working in this field.

Importantly, articles with low levels of evidence (i.e., narrative reviews, experimental studies, and case series) were the predominant types of studies among the 100 most cited articles on oral cancer. Narrative reviews are often the predominant study type in the list of the most cited articles in various disciplines.[7,14-17,20-22] It has been suggested that authors prefer to cite narrative reviews instead of the referenced original articles because they are usually written by experts in the field, published in high-impact journals, and supported by reputed organizations.[18] Only 2 randomized controlled trials were included in the list of the 100 most cited articles on oral cancer. This might imply a scarcity of high-quality evidence in oral cancer research; however, it should be acknowledged that conducting randomized controlled trials is challenging because it requires multicenter collaborations, a lot of personnel, large funding, and patients' consent.[23] Our findings, however, do not necessarily mean that studies with high-level evidence have not been commonly conducted in the field of oral cancer—it may simply imply that these types of studies may have not been cited as many times as studies with lower levels of evidence.

Similar to other citation analysis studies, our study has several limitations. First, we used only 1 database as a reference to determine the number of citations of the articles. It has been suggested that searching in more than one database may provide a more comprehensive view of the citations because the number of citations of the same article may differ across the databases.[29] On the contrary, the search in Web of Science as the only database may bring advantages. The Web of Science database was designed for citation analysis, and it is more detailed than others such as SCOPUS.[30] Furthermore, Web of Science seems to retrieve more citations from articles, editorials, and letters compared with Google Scholar, which includes nonscholarly sources, such as student handbooks.[31]

Second, an inherent limitation of citation analysis is the lack of correction for self-citations or the potential bias because of authors citing papers from journals in which they hope to publish their own work.[10] Third,

citation analyses may favor older studies because they have more time to accumulate citations, causing potential bias. It has been suggested that papers are typically first cited several years after publication, reaching their maximum quantity of citations over a period of 10 years after publication.[10,32] In an attempt to control for this potential bias, we used the citation density index, which was strongly correlated with the absolute number of citations. Fourth, citation rates do not directly reflect the quality of the cited research; this was evident in our study, where most cited articles were narrative reviews and experimental studies, which provide the lowest level of evidence. Fourth, work published before 1945 could not be included because the citation database was nonexistent at that time. Furthermore, the high number of research article originating from U.S. institutions might have skewed the list of the most cited articles so as to exclude some important articles originating from other parts of the world where oral cancer is more prevalent. This was evident in our study, where there was a large representation of articles discussing HPV and a small representation of articles discussing tobacco and betel and areca nut chewing, which are the main risk factors in parts of the world where oral cancer is more prevalent (e.g., Southeast Asia). Further studies focusing on research articles originating from parts of the world with a particularly high prevalence of oral cancer or those with unique risk factors are needed.

Last, we adopted an inclusive approach for data analysis in which all subsites were analyzed together. This approach was adopted because "oral cancer" is a rather general and nonspecific term that has been commonly used in the literature without specifying a particular subsite. This approach brought the advantage of including the most cited articles in the broad remit of oral cancer and allowed identification of the heterogeneity of literature related to oral cancer. Nevertheless, our approach didn't allow an in-depth analysis of literature related to each particular subsite. Further studies focusing on a particular subsite or a unique risk group are needed.

CONCLUSIONS

Etiology and risk factors, especially HPV, are the most commonly discussed topics in the list of the 100 most cited articles. Narrative reviews and experimental studies are the most common types among the top cited articles. Our findings could be used to guide future research efforts.

SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.oooo.2019.01.076.

REFERENCES

1. Shield KD, Ferlay J, Jemal A, et al. The global incidence of lip, oral cavity, and pharyngeal cancers by subsite in 2012. *CA Cancer J Clin*. 2017;67:51-64.
2. Chaturvedi AK, Anderson WF, Lortet-Tieulent J, et al. Worldwide trends in incidence rates for oral cavity and oropharyngeal cancers. *J Clin Oncol*. 2013;31:4550-4559.
3. Rivera C. Essentials of oral cancer. *Int J Clin Exp Pathol*. 2015;8:11884-11894.
4. Moed HF. New developments in the use of citation analysis in research evaluation. *Arch Immunol Ther Exp (Warsz)*. 2009;57:13-18.
5. Usman MS, Siddiqi TJ, Khan MS, et al. A scientific analysis of the 100 citation classics of valvular heart disease. *Am J Cardiol*. 2017;120:1440-1449.
6. Mogull SA. Accuracy of cited "facts" in medical research articles: a review of study methodology and recalculation of quotation error rate. *PLoS One*. 2017;12:e0184727.
7. Feijoo JF, Limeres J, Fernández-Varela M, Ramos I, Diz P. The 100 most cited articles in dentistry. *Clin Oral Investig*. 2014;18:699-706.
8. Lefaivre KA, Shadgan B, O'Brien PJ. 100 most cited articles in orthopaedic surgery. *Clin Orthop Relat Res*. 2011;469:1487-1497.
9. Ponce FA, Lozano AM. The most cited works in Parkinson's disease. *Mov Disord*. 2011;26:380-390.
10. Rigby M. Citation analysis in health care sciences. Innovative investigation or seductive pseudo-science? *Methods Inf Med*. 2014;53:459-463.
11. Shuaib W, Costa JL. Anatomy of success: 100 most cited articles in diabetes research. *Ther Adv Endocrinol Metab*. 2015;6:163-173.
12. Cheek J, Garnham B, Quan J. What's in a number? Issues in providing evidence of impact and quality of research(ers). *Qual Health Res*. 2006;16:423-435.
13. Institute for Scientific Information. Impact factor. Available at: http://scientific.thomson.com/free/essays/journalcitationreports/impactfactor/. Accessed November 24, 2017.
14. O'Sullivan KE, Kelly JC, Hurley JP. The 100 most cited publications in cardiac surgery: a bibliometric analysis. *Ir J Med Sci*. 2015;184:91-99.
15. Brinjikji W, Klunder A, Kallmes DF. The 100 most-cited articles in the imaging literature. *Radiology*. 2013;269:272-276.
16. Mazhari S. The 100 top-cited articles published in psychiatric journals. *J Psychiatr Pract*. 2013;19:327-338.
17. Tahim A, Patel K, Bridle C, Holmes S. The 100 most cited articles in facial trauma: a bibliometric analysis. *J Oral Maxillofac Surg*. 2016;74:2240.e1-2240.e14.
18. Faggion Jr, CM, Málaga L, Monje A, Trescher AL, Listl S, Alarcón MA. The 300 most cited articles published in periodontology. *Clin Oral Investig*. 2017;21:2021-2028.
19. Phillips B, Ball C, Sackett D. Levels of evidence. Available at: http://www.cebm.net/index.aspx?o=1025. Accessed November 24, 2017.
20. Ellul T, Bullock N, Abdelrahman T, Powell AG, Witherspoon J, Lewis WG. The 100 most cited manuscripts in emergency abdominal surgery: a bibliometric analysis. *Int J Surg*. 2017;37:29-35.
21. Powell AG, Hughes DL, Wheat JR, Lewis WG. The 100 most influential manuscripts in gastric cancer: a bibliometric analysis. *Int J Surg*. 2016;28:83-90.
22. Wrafter PF, Connelly TM, Khan J, Devane L, Kelly J, Joyce WP. The 100 most influential manuscripts in colorectal cancer: a bibliometric analysis. *Surgeon*. 2016;14:327-336.
23. De la Garza-Ramos R, Benvenutti-Regato M, Caro-Osorio E. The 100 most-cited articles in spinal oncology. *J Neurosurg Spine*. 2016;24:810-823.

24. Tas F. Majority of the most-cited articles on cutaneous malignant melanoma are published in non-dermatology/melanoma specialized journals. *J Cancer Res Ther*. 2016;12:612-615.
25. Marur S, D'Souza G, Westra WH, Forastiere AA. HPV-associated head and neck cancer: a virus-related cancer epidemic. *Lancet Oncol*. 2010;11:781-789.
26. Pimenta Amaral TM, Da Silva Freire AR, Carvalho AL, Pinto CA, Kowalski LP. Predictive factors of occult metastasis and prognosis of clinical stages I and II squamous cell carcinoma of the tongue and floor of the mouth. *Oral Oncol*. 2004;40:780-786.
27. Geum DH, Roh YC, Yoon SY, et al. The impact factors on 5-year survival rate in patients operated with oral cancer. *J Korean Assoc Oral Maxillofac Surg*. 2013;39:207-216.
28. Lin CC, Lin HC. Effects of surgeon and hospital volume on 5-year survival rates following oral cancer resections: the experience of an Asian country. *Surgery*. 2008;143:343-351.
29. Bakkalbasi N, Bauer K, Glover J, Wang L. Three options for citation tracking: Google Scholar, Scopus and Web of Science. *Biomed Digit Libr*. 2006;3:7-13.
30. Falagas ME, Pitsouni EI, Malietzis GA, Pappas G. Comparison of PubMed, Scopus, Web of Science, and Google Scholar: strengths and weaknesses. *FASEB J*. 2008;22:338-342.
31. Kulkarni AV, Aziz B, Shams I, Busse JW. Comparisons of citations in Web of Science, Scopus, and Google Scholar for articles published in general medical journals. *JAMA*. 2009;302:1092-1096.
32. Baltussen A, Kindler CH. Citation classics in anesthetic journals. *Anesth Analg*. 2004;98:443-451.

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Table S1. A list of the 100 most-cited articles on oral cancer

Rank	*Title*	*Number of citations*	*Citation density (number of citations/year)*
1	Ang KK, Harris J, Wheeler R, Weber R, Rosenthal DI, Nguyen-Tân PF, Westra WH, Chung CH, Jordan RC, Lu C, Kim H, Axelrod R, Silverman CC, Redmond KP, Gillison ML. **Human papillomavirus and survival of patients with oropharyngeal cancer**. N Engl J Med. 2010; 363:24-35.	2062	294.6
2	D'Souza G, Kreimer AR, Viscidi R, Pawlita M, Fakhry C, Koch WM, Westra WH, Gillison ML. **Case-control study of human papillomavirus and oropharyngeal cancer**. N Engl J Med. 2007; 356:1944-56.	1350	135.0
3	Fakhry C, Westra WH, Li S, Cmelak A, Ridge JA, Pinto H, Forastiere A, Gillison ML. **Improved survival of patients with human papillomavirus-positive head and neck squamous cell carcinoma in a prospective clinical trial**. J Natl Cancer Inst. 2008; 100:261-9.	1237	137.4
4	El-Sayed IH, Huang X, El-Sayed MA. **Surface plasmon resonance scattering and absorption of anti-EGFR antibody conjugated gold nanoparticles in cancer diagnostics: applications in oral cancer**. Nano Lett. 2005; 5:829-34.	1163	96.9
5	Chaturvedi AK, Engels EA, Pfeiffer RM, Hernandez BY, Xiao W, Kim E, Jiang B, Goodman MT, Sibug-Saber M, Cozen W, Liu L, Lynch CF, Wentzensen N, Jordan RC, Altekruse S, Anderson WF, Rosenberg PS, Gillison ML. **Human papillomavirus and rising oropharyngeal cancer incidence in the United States**. J Clin Oncol. 2011; 29:4294-301.	1097	182.8
6	Kreimer AR, Clifford GM, Boyle P, Franceschi S. **Human papillomavirus types in head and neck squamous cell carcinomas worldwide: a systematic review.** Cancer Epidemiol Biomarkers Prev. 2005; 14:467-75.	1050	87.5
7	Warnakulasuriya S. **Global epidemiology of oral and oropharyngeal cancer**. Oral Oncol. 2009; 45:309-16.	910	113.8
8	Herrero R, Castellsagué X, Pawlita M, Lissowska J, Kee F, Balaram P, Rajkumar T, Sridhar H, Rose B, Pintos J, Fernández L, Idris A, Sánchez MJ, Nieto A, Talamini R, Tavani A, Bosch FX, Reidel U, Snijders PJ, Meijer CJ, Viscidi R, Muñoz N, Franceschi S; **IARC Multicenter Oral Cancer Study Group. Human papillomavirus and oral cancer: the International Agency for Research on Cancer multicenter study**. J Natl Cancer Inst. 2003; 95:1772-83.	725	51.8
9	Gillison ML, D'Souza G, Westra W, Sugar E, Xiao W, Begum S, Viscidi R. **Distinct risk factor profiles for human papillomavirus type 16-positive and human papillomavirus type 16-negative head and neck cancers**. J Natl Cancer Inst. 2008; 100:407-20.	714	79.3
10	Braakhuis BJ, Tabor MP, Kummer JA, Leemans CR, Brakenhoff RH**. A genetic explanation of Slaughter's concept of field cancerization: evidence and clinical implications.** Cancer Res. 2003; 63:1727-30.	704	50.3
11	Hong WK, Endicott J, Itri LM, Doos W, Batsakis JG, Bell R, Fofonoff S, Byers R, Atkinson EN, Vaughan C, et al**. 13-cis-retinoic acid in the treatment of oral leukoplakia**. N Engl J Med. 1986; 315:1501-5.	704	22.7
12	Wei FC, Jain V, Celik N, Chen HC, Chuang DC, Lin CH**. Have we found an ideal soft-tissue flap? An experience with 672 anterolateral thigh flaps.** Plast Reconstr Surg. 2002; 109:2219-26	702	46.8
13	Marur S, D'Souza G, Westra WH, Forastiere AA**. HPV-associated head and neck cancer: a virus-related cancer epidemic.** Lancet Oncol. 2010:781-9. doi: 10.1016/S1470-2045(10)70017-6.	682	97.4
14	Hecht SS, Hoffmann D. **Tobacco-specific nitrosamines, an important group of carcinogens in tobacco and tobacco smoke**. Carcinogenesis. 1988; 9:875-84.	615	21.2
15	Klussmann JP, Weissenborn S, Fuchs PG. **Human papillomavirus infection as a risk factor for squamous-cell carcinoma of the head and neck.** N Engl J Med. 2001; 345:376	558	34.9
16	Neville BW, Day TA. **Oral cancer and precancerous lesions**. CA Cancer J Clin.2002; 52:195-215	526	35.1
17	Ackerman LV. **Verrucous carcinoma of the oral cavity.** Surgery. 1948; 23:670-8.	516	7.5
18	Bhirde AA, Patel V, Gavard J, Zhang G, Sousa AA, Masedunskas A, Leapman RD, Weigert R, Gutkind JS, Rusling JF. **Targeted killing of cancer cells in vivo and in vitro with EGF-directed carbon nanotube-based drug delivery.** ACS Nano. 2009; 3:307-16.	503	62.9

(*continued*)

Table S1. Continued

Rank	*Title*	*Number of citations*	*Citation density (number of citations/year)*
19	Weinberger PM, Yu Z, Haffty BG, Kowalski D, Harigopal M, Brandsma J, Sasaki C, Joe J, Camp RL, Rimm DL, Psyrri A. **Molecular classification identifies a subset of human papillomavirus–associated oropharyngeal cancers with favorable prognosis.** J Clin Oncol. 2006; 24:736-47.	487	44.3
20	Winn DM, Blot WJ, Shy CM, Pickle LW, Toledo A, Fraumeni JF Jr**. Snuff dipping and oral cancer among women in the southern United States.** N Engl J Med. 1981; 304:745-9.	458	12.7
21	Wynder EL, Bross IJ, Feldman RM. **A study of the etiological factors in cancer of the mouth.** Cancer. 1957; 10:1300-23.	450	7.5
22	Ko YC, Huang YL, Lee CH, Chen MJ, Lin LM, Tsai CC. **Betel quid chewing, cigarette smoking and alcohol consumption related to oral cancer in Taiwan.** J Oral Pathol Med. 1995; 24:450-3.	438	19.9
23	Hashibe M, Brennan P, Benhamou S, Castellsague X, Chen C, Curado MP, Dal Maso L, Daudt AW, Fabianova E, Fernandez L, Wünsch-Filho V, Franceschi S, Hayes RB, Herrero R, Koifman S, La Vecchia C, Lazarus P, Levi F, Mates D, Matos E, Menezes A, Muscat J, Eluf-Neto J, Olshan AF, Rudnai P, Schwartz SM, Smith E, Sturgis EM, Szeszenia-Dabrowska N, Talamini R, Wei Q, Winn DM, Zaridze D, Zatonski W, Zhang ZF, Berthiller J, Boffetta P. **Alcohol drinking in never users of tobacco, cigarette smoking in never drinkers, and the risk of head and neck cancer: pooled analysis in the International Head and Neck Cancer Epidemiology Consortium.** J Natl Cancer Inst. 2007:99:777-89.	436	43.6
24	Shiboski CH, Schmidt BL, Jordan RC. **Tongue and tonsil carcinoma: increasing trends in the U.S. population ages 20-44 years.** Cancer. 2005; 103:1843-9.	427	35.6
25	Warnakulasuriya S, Johnson NW, van der Waal I. **Nomenclature and classification of potentially malignant disorders of the oral mucosa.** J Oral Pathol Med. 2007; 36:575-80.	413	41.3
26	Fischbach C, Chen R, Matsumoto T, Schmelzle T, Brugge JS, Polverini PJ, Mooney DJ**. Engineering tumors with 3D scaffolds.** Nat Methods. 2007; 4:855-60.	408	40.8
27	Gstaiger M, Jordan R, Lim M, Catzavelos C, Mestan J, Slingerland J, Krek W. **Skp2 is oncogenic and overexpressed in human cancers.** Proc Natl Acad Sci U S A. 2001; 98:5043-8.	400	25.0
28	Kozaki K, Imoto I, Mogi S, Omura K, Inazawa J. **Exploration of tumor-suppressive microRNAs silenced by DNA hypermethylation in oral cancer.**Cancer Res. 2008; 68:2094-105	398	44.2
29	Kuo CL, Chi CW, Liu TY**. The anti-inflammatory potential of berberine in vitro and in vivo.** Cancer Lett. 2004; 203:127-37.	396	30.5
30	Licitra L, Perrone F, Bossi P, Suardi S, Mariani L, Artusi R, Oggionni M, Rossini C, Cantù G, Squadrelli M, Quattrone P, Locati LD, Bergamini C, Olmi P, Pierotti MA, Pilotti S. **High-risk human papillomavirus affects prognosis in patients with surgically treated oropharyngeal squamous cell carcinoma.** J Clin Oncol. 2006; 24:5630-6.	390	35.5
31	Skala MC, Riching KM, Gendron-Fitzpatrick A, Eickhoff J, Eliceiri KW, White JG, Ramanujam N. **In vivo multiphoton microscopy of NADH and FAD redox states, fluorescence lifetimes, and cellular morphology in precancerous epithelia.** Proc Natl Acad Sci U S A. 2007; 104:19494-9.	384	38.4
32	Chiou SH, Yu CC, Huang CY, Lin SC, Liu CJ, Tsai TH, Chou SH, Chien CS, Ku HH, Lo JF. **Positive correlations of Oct-4 and Nanog in oral cancer stem-like cells and high-grade oral squamous cell carcinoma.** Clin Cancer Res. 2008; 14:4085-95.	383	42.6
33	Schwartz SM, Daling JR, Doody DR, Wipf GC, Carter JJ, Madeleine MM, Mao EJ, Fitzgibbons ED, Huang S, Beckmann AM, McDougall JK, Galloway DA. **Oral cancer risk in relation to sexual history and evidence of human papillomavirus infection**. J Natl Cancer Inst. 1998; 90:1626-36.	379	19.9
34	Huang X, El-Sayed IH, Qian W, El-Sayed MA**. Cancer cells assemble and align gold nanorods conjugated to antibodies to produce highly enhanced, sharp, and polarized surface Raman spectra: a potential cancer diagnostic marker**. Nano Lett. 2007; 7:1591-7.	372	37.2

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Table S1. Continued

Rank	*Title*	*Number of citations*	*Citation density (number of citations/year)*
36	Ragin CC, Taioli E. **Survival of squamous cell carcinoma of the head and neck in relation to human papillomavirus infection: review and meta-analysis.** Int J Cancer. 2007; 121:1813-20.	356	35.6
35	Park NJ, Zhou H, Elashoff D, Henson BS, Kastratovic DA, Abemayor E, Wong DT. **Salivary microRNA: discovery, characterization, and clinical utility for oral cancer detection.** Clin Cancer Res. 2009; 15:5473-7.	334	41.8
37	Matsumoto K, Matsumoto K, Nakamura T, Kramer RH. **Hepatocyte growth factor/scatter factor induces tyrosine phosphorylation of focal adhesion kinase (p125FAK) and promotes migration and invasion by oral squamous cell carcinoma cells.** J Biol Chem. 1994; 269:31807-13.	320	13.9
38	Spiro RH, Huvos AG, Wong GY, Spiro JD, Gnecco CA, Strong EW. **Predictive value of tumor thickness in squamous carcinoma confined to the tongue and floor of the mouth**. Am J Surg. 1986; 152:345-50.	315	10.2
39	Hashibe M, Brennan P, Chuang SC, Boccia S, Castellsague X, Chen C, Curado MP, Dal Maso L, Daudt AW, Fabianova E, Fernandez L, Wünsch-Filho V, Franceschi S,Hayes RB, Herrero R, Kelsey K, Koifman S, La Vecchia C, Lazarus P, Levi F, Lence JJ, Mates D, Matos E, Menezes A, McClean MD, Muscat J, Eluf-Neto J, Olshan AF,Purdue M, Rudnai P, Schwartz SM, Smith E, Sturgis EM, Szeszenia-Dabrowska N,Talamini R, Wei Q, Winn DM, Shangina O, Pilarska A, Zhang ZF, Ferro G, Berthiller J, Boffetta P. **Interaction between tobacco and alcohol use and the risk of head and neck cancer: pooled analysis in the International Head and Neck Cancer Epidemiology Consortium.** Cancer Epidemiol Biomarkers Prev. 2009; 18:541-50.	302	37.8
40	Miller CS, Johnstone BM. **Human papillomavirus as a risk factor for oral squamous cell carcinoma: a meta-analysis, 1982-1997**. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2001; 91:622-35.	289	18.1
41	Hammarstedt L, Lindquist D, Dahlstrand H, Romanitan M, Dahlgren LO, Joneberg J, Creson N, Lindholm J, Ye W, Dalianis T, Munck-Wikland E**. Human papillomavirus as a risk factor for the increase in incidence of tonsillar cancer**. Int J Cancer. 2006; 119:2620-3.	279	25.4
42	Smith EM, Ritchie JM, Summersgill KF, Klussmann JP, Lee JH, Wang D, Haugen TH, Turek LP. **Age, sexual behavior and human papillomavirus infection in oral cavity and oropharyngeal cancers.** Int J Cancer. 2004; 108:766-72.	278	21.4
43	Reibel J**. Prognosis of oral pre-malignant lesions: significance of clinical, histopathological, and molecular biological characteristics.** Crit Rev Oral Biol Med. 2003; 14:47-62.	276	19.7
44	Michaluart P, Masferrer JL, Carothers AM, Subbaramaiah K, Zweifel BS, Koboldt C, Mestre JR, Grunberger D, Sacks PG, Tanabe T, Dannenberg AJ**. Inhibitory effects of caffeic acid phenethyl ester on the activity and expression of cyclooxygenase-2 in human oral epithelial cells and in a rat model of inflammation.** Cancer Res. 1999; 59:2347-52.	275	15.3
45	Sugimoto M, Wong DT, Hirayama A, Soga T, Tomita M. **Capillary electrophoresis mass spectrometry-based saliva metabolomics identified oral, breast and pancreatic cancer-specific profiles.** Metabolomics. 2010; 6:78-95.	274	39.1
46	Rosin MP, Cheng X, Poh C, Lam WL, Huang Y, Lovas J, Berean K, Epstein JB, Priddy R, Le ND, Zhang L. **Use of allelic loss to predict malignant risk for Low-grade oral epithelial dysplasia.** Clin Cancer Res. 2000; 6:357-62.	273	16.1
47	Eisen D. **The clinical features, malignant potential, and systemic associations of oral lichen planus: a study of 723 patients**. J Am Acad Dermatol. 2002; 46:207-14.	271	18.1
48	Ritchie JM, Smith EM, Summersgill KF, Hoffman HT, Wang D, Klussmann JP, Turek LP, Haugen TH. **Human papillomavirus infection as a prognostic factor in carcinomas of the oral cavity and oropharynx**. Int J Cancer. 2003; 104:336-44.	270	19.3
49	Li Y, St John MA, Zhou X, Kim Y, Sinha U, Jordan RC, Eisele D, Abemayor E, Elashoff D, Park NH, Wong DT. **Salivary transcriptome diagnostics for oral cancer detection.** Clin Cancer Res. 2004; 10:8442-50.	269	20.7
50	Massano J, Regateiro FS, Januário G, Ferreira A. **Oral squamous cell carcinoma: review of prognostic and predictive factors.** Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2006; 102:67-76.	264	24.0

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Table S1. Continued

Rank	*Title*	*Number of citations*	*Citation density (number of citations/year)*
51	Paz IB, Cook N, Odom-Maryon T, Xie Y, Wilczynski SP. **Human papillomavirus (HPV) in head and neck cancer. An association of HPV 16 with squamous cell carcinoma of Waldeyer's tonsillar ring.** Cancer. 1997; 79:595-604.	263	13.2
52	Chaturvedi AK, Anderson WF, Lortet-Tieulent J, Curado MP, Ferlay J, Franceschi S, Rosenberg PS, Bray F, Gillison ML. **Worldwide trends in incidence rates for oral cavity and oropharyngeal cancers.** J Clin Oncol. 2013; 31:4550-9.	259	64.8
53	Sankaranarayanan R, Ramadas K, Thomas G, Muwonge R, Thara S, Mathew B, Rajan B; Trivandrum Oral Cancer Screening Study Group. **Effect of screening on oral cancer mortality in Kerala, India: a cluster-randomised controlled trial.** Lancet. 2005; 365:1927-33.	256	21.3
54	Mashberg A, Boffetta P, Winkelman R, Garfinkel L. **Tobacco smoking, alcohol drinking, and cancer of the oral cavity and oropharynx among U.S. veterans.** Cancer. 1993; 72:1369-75.	253	10.5
55	Franco EL, Kowalski LP, Oliveira BV, Curado MP, Pereira RN, Silva ME, Fava AS, Torloni H. **Risk factors for oral cancer in Brazil: a case-control study**. Int J Cancer. 1989; 43:992-1000.	252	9.0
56	Oyelere AK, Chen PC, Huang X, El-Sayed IH, El-Sayed MA. **Peptide-conjugated gold nanorods for nuclear targeting**. Bioconjug Chem. 2007; 18:1490-7	249	24.9
57	Graham S, Dayal H, Rohrer T, Swanson M, Sultz H, Shedd D, Fischman S. **Dentition, diet, tobacco, and alcohol in the epidemiology of oral cancer.** J Natl Cancer Inst. 1977; 59:1611-8.	249	6.2
58	Ko YC, Chiang TA, Chang SJ, Hsieh SF. **Prevalence of betel quid chewing habit in Taiwan and related sociodemographic factors.** J Oral Pathol Med. 1992; 21:261-4.	247	9.9
59	La Vecchia C, Tavani A, Franceschi S, Levi F, Corrao G, Negri E. **Epidemiology and prevention of oral cancer.** Oral Oncol. 1997; 33:302-12.	246	12.3
60	Hu S, Arellano M, Boontheung P, Wang J, Zhou H, Jiang J, Elashoff D, Wei R, Loo JA, Wong DT. **Salivary proteomics for oral cancer biomarker discovery.** Clin Cancer Res. 2008; 14:6246-52.	245	27.2
61	Llewellyn CD, Johnson NW, Warnakulasuriya KA**. Risk factors for squamous cell carcinoma of the oral cavity in young people—a comprehensive literature review.** Oral Oncol. 2001; 37:401-18.	245	15.3
63	Warnakulasuriya S, Reibel J, Bouquot J, Dabelsteen E. **Oral epithelial dysplasia classification systems: predictive value, utility, weaknesses and scope for improvement.** J Oral Pathol Med. 2008; 37:127-33.	240	26.7
62	Boffetta P, Hecht S, Gray N, Gupta P, Straif K. **Smokeless tobacco and cancer. Lancet Oncol.** 2008; 9:667-75.	240	26.7
64	Klussmann JP, Weissenborn SJ, Wieland U, Dries V, Kolligs J, Jungehuelsing M, Eckel HE, Dienes HP, Pfister HJ, Fuchs PG. **Prevalence, distribution, and viral load of human papillomavirus 16 DNA in tonsillar carcinomas**. Cancer. 2001; 92:2875-84.	240	15.0
65	Sakai E, Tsuchida N. **Most human squamous cell carcinomas in the oral cavity contain mutated p53 tumor-suppressor genes.** Oncogene. 1992; 7:927-33.	239	9.6
66	McLaughlin JK, Gridley G, Block G, Winn DM, Preston-Martin S, Schoenberg JB, Greenberg RS, Stemhagen A, Austin DF, Ershow AG, et al. **Dietary factors in oral and pharyngeal cancer.** J Natl Cancer Inst. 1988; 80:1237-43.	239	8.2
67	Childs G, Fazzari M, Kung G, Kawachi N, Brandwein-Gensler M, McLemore M, Chen Q, Burk RD, Smith RV, Prystowsky MB, Belbin TJ, Schlecht NF. **Low-level expression of microRNAs let-7d and miR-205 are prognostic markers of head and neck squamous cell carcinoma.** Am J Pathol. 2009; 174:736-45.	235	29.4
68	Xia W, Lau YK, Zhang HZ, Xiao FY, Johnston DA, Liu AR, Li L, Katz RL, Hung MC. **Combination of EGFR, HER-2/neu, and HER-3 is a stronger predictor for the outcome of oral squamous cell carcinoma than any individual family members.** Clin Cancer Res. 1999; 5:4164-74.	232	12.9
69	Zeng Q, Li S, Chepeha DB, Giordano TJ, Li J, Zhang H, Polverini PJ, Nor J, Kitajewski J, Wang CY**. Crosstalk between tumor and endothelial cells promotes tumor angiogenesis by MAPK activation of Notch signaling.** Cancer Cell. 2005**; 8:13**-23.	230	19.2
70	Kunkel M, Reichert TE, Benz P, Lehr HA, Jeong JH, Wieand S, Bartenstein P, Wagner W, Whiteside TL**. Overexpression of Glut-1 and increased glucose**	229	16.4

(*continued*)

Table S1. Continued

Rank	*Title*	*Number of citations*	*Citation density (number of citations/year)*
	metabolism in tumors are associated with a poor prognosis in patients with oral squamous cell carcinoma. Cancer. 2003; 97:1015-24.		
71	Lingen MW, Kalmar JR, Karrison T, Speight PM. **Critical evaluation of diagnostic aids for the detection of oral cancer.** Oral Oncol. 2008; 44:10-22.	228	25.3
72	Urken ML, Buchbinder D, Weinberg H, Vickery C, Sheiner A, Parker R, Schaefer J, Som P, Shapiro A, Lawson W, et al. **Functional evaluation following microvascular oromandibular reconstruction of the oral cancer patient: a comparative study of reconstructed and nonreconstructed patients.** Laryngoscope.1991; 101:935-50.	227	8.7
73	Shah JP, Gil Z. **Current concepts in management of oral cancer—surgery.** Oral Oncol. 2009; 45:394-401.	225	28.1
74	Napier SS, Speight PM. **Natural history of potentially malignant oral lesions and conditions: an overview of the literature**. J Oral Pathol Med. 2008; 37:1-10.	221	24.6
75	Lin A, Kim HM, Terrell JE, Dawson LA, Ship JA, Eisbruch A**. Quality of life after parotid-sparing IMRT for head-and-neck cancer: a prospective longitudinal study**. Int J Radiat Oncol Biol Phys. 2003; 57:61-70.	221	15.8
76	Curtin HD, Ishwaran H, Mancuso AA, Dalley RW, Caudry DJ, McNeil BJ. **Comparison of CT and MR imaging in staging of neck metastases.** Radiology. 1998; 207:123-30.	221	11.6
77	Jeng JH, Chang MC, Hahn LJ**. Role of areca nut in betel quid-associated chemical carcinogenesis: current awareness and future perspectives.** Oral Oncol. 2001; 37:477-92.	220	13.8
78	Kim JW, Wieckowski E, Taylor DD, Reichert TE, Watkins S, Whiteside TL. **Fas ligand-positive membranous vesicles isolated from sera of patients with oral cancer induce apoptosis of activated T lymphocytes.** Clin Cancer Res. 2005; 11:1010-20.	217	18.1
79	Kreimer AR, Alberg AJ, Daniel R, Gravitt PE, Viscidi R, Garrett ES, Shah KV, Gillison ML. **Oral human papillomavirus infection in adults is associated with sexual behavior and HIV serostatus.** J Infect Dis. 2004; 189:686-98.	217	16.7
80	Funk GF, Karnell LH, Robinson RA, Zhen WK, Trask DK, Hoffman HT. **Presentation, treatment, and outcome of oral cavity cancer: a National Cancer Data Base report**. Head Neck. 2002; 24:165-80.	214	14.3
81	Petersen PE. **Oral cancer prevention and control—the approach of the World Health Organization.** Oral Oncol. 2009; 45:454-60.	213	26.6
82	Kurahara S, Shinohara M, Ikebe T, Nakamura S, Beppu M, Hiraki A, Takeuchi H, Shirasuna K. **Expression of MMPS, MT-MMP, and TIMPs in squamous cell carcinoma of the oral cavity: correlations with tumor invasion and metastasis.** Head Neck. 1999; 21:627-38	212	11.8
83	Silverman S Jr. **Demographics and occurrence of oral and pharyngeal cancers. The outcomes, the trends, the challenge.** J Am Dent Assoc. 2001; 132 Suppl:7S-11S.	211	13.2
84	Grant WE, Hopper C, MacRobert AJ, Speight PM, Bown SG. **Photodynamic therapy of oral cancer: photosensitisation with systemic aminolaevulinic acid.** Lancet. 1993 Jul; 342:147-8.	210	8.8
85	Nair U, Bartsch H, Nair J. **Alert for an epidemic of oral cancer due to use of the betel quid substitutes gutkha and pan masala: a review of agents and causative mechanisms.** Mutagenesis. 2004; 19:251-62.	208	16.0
86	Hebert C, Norris K, Scheper MA, Nikitakis N, Sauk JJ. **High mobility group A2 is a target for miRNA-98 in head and neck squamous cell carcinoma**. Mol Cancer.2007; 6:5.	207	20.7
87	Syrjänen S**. Human papillomavirus (HPV) in head and neck cancer.** J Clin Virol.2005; 32 Suppl 1:S59-66.	205	17.1
88	Malhotra R, Patel V, Vaqué JP, Gutkind JS, Rusling JF. **Ultrasensitive electrochemical immunosensor for oral cancer biomarker IL-6 using carbon nanotube forest electrodes and multilabel amplification.** Anal Chem. 2010; 82:3118-23.	204	29.1
89	Hobbs CG, Sterne JA, Bailey M, Heyderman RS, Birchall MA, Thomas SJ. **Human papillomavirus and head and neck cancer: a systematic review and meta-analysis**. Clin Otolaryngol. 2006; 31:259-66.	204	18.5

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Table S1. Continued

Rank	*Title*	*Number of citations*	*Citation density (number of citations/year)*
90	Yadav A, Kumar B, Datta J, Teknos TN, Kumar P. **IL-6 promotes head and neck tumor metastasis by inducing epithelial-mesenchymal transition via the JAK-STAT3-SNAIL signaling pathway.** Mol Cancer Res. 2011; 9:1658-67.	202	33.7
91	Patel V, Senderowicz AM, Pinto D Jr, Igishi T, Raffeld M, Quintanilla-Martinez L, Ensley JF, Sausville EA, Gutkind JS. **Flavopiridol, a novel cyclin-dependent kinase inhibitor, suppresses the growth of head and neck squamous cell carcinomas by inducing apoptosis.** J Clin Invest. 1998; 102:1674-81.	202	10.6
92	Ringström E, Peters E, Hasegawa M, Posner M, Liu M, Kelsey KT. **Human papillomavirus type 16 and squamous cell carcinoma of the head and neck.** Clin Cancer Res. 2002; 8:3187-92.	201	13.4
93	Parkin DM, Pisani P, Lopez AD, Masuyer E. **At least one in seven cases of cancer is caused by smoking. Global estimates for 1985.** Int J Cancer. 1994; 59:494-504.	198	8.6
94	Nör JE, Christensen J, Liu J, Peters M, Mooney DJ, Strieter RM, Polverini PJ. **Up-Regulation of Bcl-2 in microvascular endothelial cells enhances intratumoral angiogenesis and accelerates tumor growth.** Cancer Res. 2001; 61:2183-8.	197	12.3
95	Ragin CC, Modugno F, Gollin SM. **The epidemiology and risk factors of head and neck cancer: a focus on human papillomavirus**. J Dent Res. 2007; 86:104-14.	195	19.5
96	Gupta PC, Ray CS. **Smokeless tobacco and health in India and South Asia.** Respirology. 2003; 8:419-31.	195	13.9
97	Choi S, Myers JN**. Molecular pathogenesis of oral squamous cell carcinoma: implications for therapy.** J Dent Res. 2008; 87:14-32. Review. Erratum in: J Dent Res. 2008; 87:191.	194	21.6
98	Saranath D, Chang SE, Bhoite LT, Panchal RG, Kerr IB, Mehta AR, Johnson NW, Deo MG. **High frequency mutation in codons 12 and 61 of H-ras oncogene in chewing tobacco-related human oral carcinoma in India.** Br J Cancer. 1991; 63:573-8.	193	7.4
99	Woolgar JA. **Histopathological prognosticators in oral and oropharyngeal squamous cell carcinoma.** Oral Oncol. 2006; 42:229-39.	192	17.5
100	Day GL, Blot WJ, Shore RE, McLaughlin JK, Austin DF, Greenberg RS, Liff JM, Preston-Martin S, Sarkar S, Schoenberg JB, et al. **Second cancers following oral and pharyngeal cancers: role of tobacco and alcohol.** J Natl Cancer Inst. 1994; 86:131-7.	191	8.3