

# Appraisal of Clinical Practice Guidelines for Salivary Gland Cancer Management Utilizing AGREE II Instrument

Kaiwen Chen B.S.,<sup>1</sup> Young Lee M.S.,<sup>2</sup> Jonathan P. Kuriakose M.D. M.S.,<sup>1,3</sup> Najm S. Khan MBS,<sup>1</sup> Karthik Rajasekaran M.D. FACS<sup>4</sup>





## Introduction

- Salivary gland cancers (SGCs) are rare neoplasms which comprise 3-10% of all head and neck tumors<sup>1</sup>
- High variability and little standardization in clinical practice guidelines for treatment and management of SGCs
  - Due to the multidisciplinary approach and rarity of SGCs
- Objective: To assess the quality of CPGs regarding SGC management utilizing the AGREE II instrument

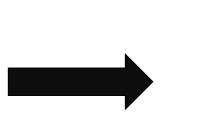
## Methods

- AGREE-II instrument assesses the quality and rigor of CPGs via 6 domains: Scope and Purpose, Stakeholder Involvement, Rigor of Development, Clarity of Presentation, Applicability, and Editorial Independence<sup>2</sup>
- Each domain contains several questions, with 23 total items to be scored graded on a 7-point scale (1-strongly disagree; 7strongly agree) based on completeness and quality of reporting
- Each CPG was independently reviewed by each of the authors and scored with the AGREE-II instrument manual as reference
- Interclass Correlation Coefficient (ICC) were performed to measure the degree of consistency between each of the four reviewers
- Scores for each item were added across reviewers to form an "aggregate score" following AGREE II manual calculations
- For each domain, the threshold for "satisfactory" was generated to be >60%, and a CPG was deemed "high quality" if it contained >4 satisfactory domains

## Clinical Practice Guideline Systematic Review

#### **Inclusion Criteria**

- All national or international guidelines, consensus statements, or recommendations regarding the management of SGC were included
- If multiple guidelines were published by the same organization, only the most updated report was included
- Reports that were not published in a peerreviewed journal, a review article, or not available in English were excluded from the study



### Electronic Database Search

Database conception to December 1<sup>st</sup>, 2022: PubMed, Cochrane, Scopus, Google Scholar, and EMBASE

#### Search Term Categories

(("salivary gland cancer" OR "salivary gland mass" OR "salivary gland tumor") AND ("guideline" OR "consensus" OR "recommendation" OR "clinical practice guideline")).

N= 645



Duplication Analysis and Independent Review

N = 4

Final: Hand searching identified two additional CPG to yield six total studies

## **Table**

| Quality Appraisal of Included CPGs using Scaled Domain Scores |              |                                   |                                |                             |              |                                  |                            |                    |
|---|--------------|-----------------------------------|--------------------------------|-----------------------------|--------------|----------------------------------|----------------------------|--------------------|
| Organization  | •            | Stakeholder<br>Involvement<br>(%) | Rigor of<br>Development<br>(%) | Clarity of Presentation (%) |              | Editorial<br>Independence<br>(%) | Average<br>Score<br>(Mean) | Overall<br>Quality |
| United<br>Kingdom   |              |                                   |                                |                             |              |                                  |                            | _                  |
| Associations  |              | 12.50                             | 6.25                           | 77.78                       | 11.46        | 0.00                             | 24.02                      | Low                |
| University of Rome  | 75.00        | 41.67                             | 19.79                          | 29.17                       | 15.63        | 85.42                            | 44.45                      | Low                |
| NCCN  | 58.33        | 44.44                             | 36.98                          | 62.50                       | 25.00        | 72.92                            | 50.03                      | Low                |
| ASCO  | 94.44        | 88.89                             | 92.71                          | 97.22                       | 91.67        | 100.00                           | 94.16                      | High               |
| PARTNER   | 84.72        | 26.39                             | 18.23                          | 59.72                       | 20.83        | 89.58                            | 49.91                      | Low                |
| ESMO-<br>EURACAN  | 30.56        | 22.22                             | 30.21                          | 61.11                       | 16.67        | 87.50                            | 41.38                      | Low                |
| Mean ± SD   | 63.19 ± 23.8 | 39.35 ± 24.7                      | 34.02 ± 27.9                   | 64.58 ± 20.5                | 30.21 ± 27.8 | 72.57 ± 33.4                     |                            |                    |

**Note.** Yellow = highest, Green = lowest

## Results

- 2 CPGs were developed by cancer societies in the USA
- 4 CPGs were developed by European medical societies (Italy, UK, and two between collaborative societies in the EU)
- ICC scores ranged from 0.937-0.983, indicating a high level of inter-rater agreement between reviewers across all domains
- Only the ASCO was determined to be of "high quality" per predetermined criteria
- The domain with the highest score was Editorial Independence followed by clarity and presentation while the lowest overall score was applicability

## Discussion/Conclusion

#### **Limitations:**

- •Accuracy and scientific validity of CPGs were not assessed
- This topic includes relatively uncommon diagnoses, and there exists a paucity of randomized controlled trials from which to draw high-quality evidence
- The grading of the guidelines themselves is subjective and dependent on reviewer discretion
  - This limitation is partially mediated by using independent reviewers as well as ICC testing
- <u>Conclusions</u>: CPGs for SGC require greater standardization and validation of methodology

## References

- . Carlson ER, Schlieve T. Salivary Gland Malignancies. *Oral Maxillofac Surg Clin North Am*. 2019;31(1):125-144. doi:10.1016/j.coms.2018.08.007
- 2. Brouwers MC, Kho ME, Browman GP, et al. AGREE II: Advancing guideline development, reporting and evaluation in health care. *C Can Med Assoc J*. 2010;182(18):839-842. doi:10.1503/cmaj.090449

Acknowledgements: Thank you to Dr. Rajesakaran for serving as the mentor for this project