

# Appraising the AAO-HNSF Clinical Practice Guidelines for Effective Dissemination and Implementation



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## INTRODUCTION

Dissemination and implementation (D&I) science analyzes interventional strategies which aid in spreading scientific knowledge, adopting evidence into practice, and identifying barriers in order to maximize successful integration of science into practice.

This study set out to critically appraise the published D&I strategies of the American Academy of Otolaryngology-Head and Neck Surgery Foundation, Inc. (AAO-HNSF) Clinical Practice Guidelines (CPGs) and to provide an introduction to the theories of D&I science.

## METHODS

- 15 AAO-HNSF CPGs underwent appraisal by two independent reviewers using the AGREE II instrument.
- The AGREE II is an instrument specifically designed for evaluation of CPGs. CPG scores were calculated over 23 key items divided into six domains.
- Inter-rater reliability was calculated to verify consistency in the ratings between reviewers.

Table 1. AGREE II Domain Scores	Mean Percentage of Maximum Possible Points	95% Confidence Interval	
		LL	UL
Domain 1. Scope and Purpose	98.3%	96.9%	99.7%
Domain 2. Stakeholder Involvement	91.3%	88.9%	93.7%
Domain 3. Rigour of Development	90.7%	89.4%	92.0%
Domain 4. Clarity of Presentation	98.0%	96.6%	99.3%
Domain 5. Applicability	41.3%	40.6%	41.9%
Domain 6. Editorial Independence	99.2%	97.9%	100.0%

## RESULTS

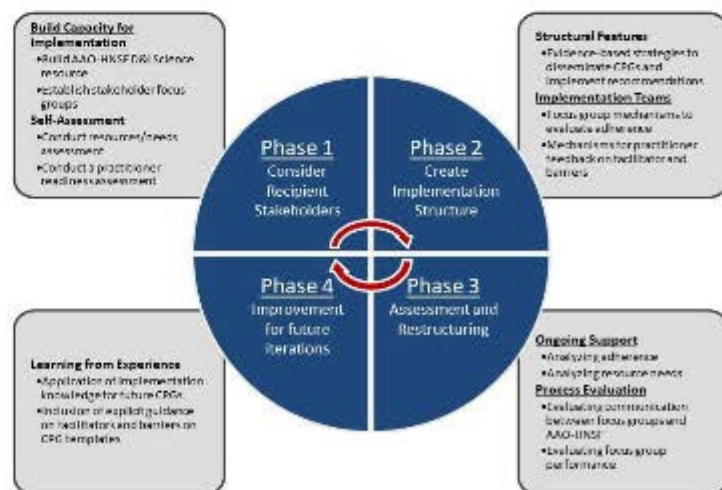
- Mean inter-rater reliability was strong (0.852; 95%CI: 0.802, 0.902)
- Overall CPGs scored a mean of 84.9% (95% CI: 84.1%-85.6%) of the maximum possible points. Individual CPG scores ranged from 81.9% to 86.6%.
- All Domains of the AGREE II instrument, except Domain 5, scored a mean of 90.7% or better (Table 1).
- Based on Domain 5 Applicability, CPG D&I strategy scores ranged from 37.5% to 41.7% (Table 2).

Table 2. Clinical Practice Guideline Reviewed	Domain 5 Percentage of Maximum Possible Points
Acute Otitis Externa	41.7%
Adult Sinusitis	41.7%
Allergic Rhinitis	41.7%
Bell's Palsy	41.7%
Benign Paroxysmal Positional Vertigo (BPPV)	41.7%
Earwax (Cerumen Impaction)	41.7%
Evaluation of Neck Mass In Adults	39.6%
Hoarseness (Dysphonia)	37.5%
Improving Nasal Form and Function after Rhinoplasty	41.7%
Improving Voice Outcomes after Thyroid Surgery	41.7%
Otitis Media with Effusion (OME)	41.7%
Sudden Hearing Loss	41.7%
Tinnitus	41.7%
Tonsillectomy In Children	41.7%

## DISCUSSION

- Evaluating the D&I of scientific evidence is critical to understanding its penetrance into otolaryngology practice.
- While the AAO-HNSF CPGs provide high-quality recommendations based on available evidence, aspects of their adoption into clinical practice have lagged.<sup>1,2</sup> Multiple studies demonstrate a lack of CPG adherence potentially leading to poorer outcomes in care.
- Implementation frameworks could help isolate the effects AAO-HNSF CPGs have on clinical practice. These frameworks guide the implementation process, identify influential interventional factors, and sustain ongoing implementation evaluation.<sup>3</sup> The Quality Implementation Framework (QIF) demonstrates utility in facilitation of implementation science.<sup>4</sup> We suggest this model as a framework for future CPG D&I consideration within otolaryngology (Figure 1).
- Unguided implementation is an ineffective approach, and there is opportunity for growth and innovation within otolaryngology. Enhanced D&I efforts would allow us to fill a void in our understanding of how to best incorporate scientific research into practice.

Figure 1: Proposed model for D&I using the Quality Implementation Framework



## CONCLUSION

D&I strategies within the AAO-HNSF CPGs lack adequate detail or are virtually absent. Nesting a D&I framework, such as the Quality Improvement Framework (QIF), within CPGs would allow for identification of barriers to adoption and evaluation of interventions to improve implementation. **Ultimately, this D&I framework would allow for objective measurement of the overall impact of CPGs on otolaryngology practices.**

## REFERENCES

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