

National Testing Utilization Trends Following a Ménière's Disease CPG Publication

Marina M. Kheyfets, MPH¹; Emma R. Camps, BS²; Kristine A. Schulz, DrPH, MPH¹; Matthew L. Bush, MD, PhD, MBA, FACS³

1. American Academy of Otolaryngology-Head and Neck Surgery Foundation

2. University of Pittsburgh School of Public Health

3. Department of Otolaryngology – Head and Neck Surgery, University of Kentucky

INTRODUCTION

Research Question:

- How did the publication of the 2020 Ménière's Disease (MD) Clinical Practice Guideline (CPG) impact vestibular function testing and electrocochleography utilization?

Hypothesis

- There will be a decrease in the level and slope of testing utilization after CPG publication.

Background

- Ménière's Disease affects approximately 3.5 to 513 people per 100,000 worldwide.^{1,2}
- April 2020: MD CPG Publication²
 - Key Action Statement 5: Clinicians should not routinely order vestibular function testing or electrocochleography to establish the diagnosis of Ménière's disease.
 - Lack of high-quality evidence to support diagnostic accuracy, potential worsening of symptoms, and delays in treatment due to variations in access and availability

METHODS

Data Source:

- RegentSM Clinical Data Registry

Study Design:

- Patient Population:** Adults diagnosed with MD between January 2015 and November 2025
- Outcome:** % of newly diagnosed patients that had vestibular testing and/or electrocochleography 180 days prior to diagnosis
- Statistical Analysis:** Interrupted Time Series Analysis (ITSA)
 - Pre: January 2015-March 2020
 - Post: April 2020-November 2025
- Sensitivity Analysis:** Data from 2020-2021 was removed to account for the impact of COVID-19 on healthcare utilization

RESULTS

All Data Model

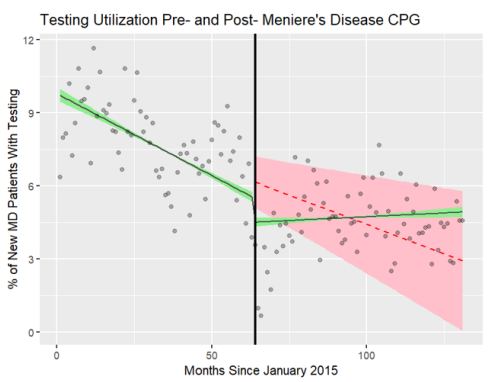


Figure 1. Testing Utilization Pre- and Post- CPG (All Data Model)
Pre-CPG Slope: -0.07 percentage points per month, $p < 0.001$
Post-CPG Level Change: -1.05 percentage points, $p < 0.001$
Post-CPG Slope Change: +0.07 percentage points per month, $p < 0.001$

Excluding COVID-19 Peak Years (2020-2021)

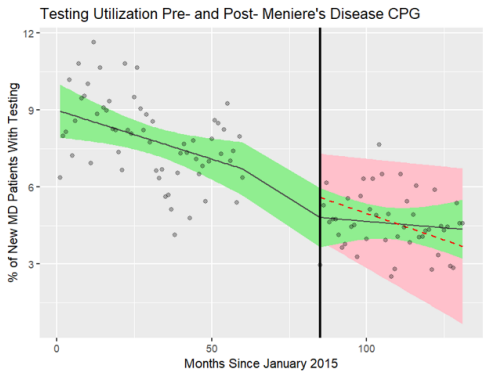


Figure 2. Testing Utilization Pre- and Post- CPG (Sensitivity Analysis Model)
Pre-CPG Slope: -0.04 percentage points per month, $p = 0.014$
Post-CPG Level Change: -1.57 percentage points, $p = 0.182$
Post-CPG Slope Change: +0.03 percentage points per month, $p = 0.289$

CONCLUSION

- Initial findings of an immediate post-CPG decrease in testing utilization with a subsequent increased slope might be better explained by COVID-19 disruptions.
- There are key challenges in guideline implementation, especially during periods of systemic disruption.
- Limitations:
 - There is usually a 4-12-year delay between guideline publication and at least 50% uptake in clinical practice.³
 - Reg-ent data are derived from electronic health records and may vary in completeness, consistency, and availability.
 - Data was derived from three academic medical centers.
- Future Directions:
 - How do different implementation strategies, such as automated clinical decision support systems, improve uptake of CPG recommendations into clinical practice?

- Koenen L, Andaloro C. Meniere Disease. In: *StatPearls*. StatPearls Publishing; 2025. Accessed February 5, 2026. <http://www.ncbi.nlm.nih.gov/books/NBK536955>
- Basura GJ, Adams ME, Monfared A, et al. Clinical Practice Guideline: Ménière's Disease. *Otolaryngol Neck Surg*. 2020;162(S2):S1-S55. doi:10.1177/0194599820909438
- Khan S, Chambers D, Neta G. Revisiting time to translation: implementation of evidence-based practices (EBPs) in cancer control. *Cancer Causes Control*. 2021;32(3):221-230. doi:10.1007/s10552-020-01376-z