



Primary Care Management of Sudden Sensorineural Hearing Loss: Knowledge Gaps and Barriers to Timely Care

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Abstract

Objective: Evaluate primary care provider (PCP) knowledge, diagnostic confidence, and management of sudden sensorineural hearing loss (SSNHL).

Methods: Cross-sectional survey of 95 PCPs assessing:

- SSNHL knowledge
- Diagnostic approach
- Management decisions
- Access to audiology and otolaryngology

Results:

- 62% reported limited familiarity with SSNHL
- 59% reported low diagnostic confidence
- Only 19% would initiate oral corticosteroids Most providers recognized the need for evaluation within 72 hours, but reported delays beyond this interval
- Only 17% demonstrated guideline-concordant management

Conclusion: Significant educational and system-level barriers contribute to delayed SSNHL care. However, these may present a key opportunity for intervention and quality improvement.

Methods and Materials

A 25-question cross-sectional survey was administered to primary care providers across multiple practice settings, including physicians and advanced practice providers. The survey assessed familiarity with SSNHL, diagnostic confidence, management decisions, and access to audiology and otolaryngology services.

Guideline concordance was defined as both initiating oral corticosteroids and communicating an urgent referral when SSNHL was suspected.

Descriptive statistics were used to summarize participant characteristics. Categorical variables were compared using chi-square testing. Ranking data were analyzed using Friedman tests with post-hoc Wilcoxon signed-rank testing and Bonferroni correction. Statistical significance was defined as $p < 0.05$.

Results

A total of 95 primary care providers completed the survey. Most respondents reported limited familiarity with SSNHL (62%) and low confidence in diagnosing the condition (59%).

In clinical practice, while 85% reported using otoscopy as an available diagnostic tool, fewer than half had access to tuning forks (41%) or hearing screening tools (42%).

Key management findings included:

- More than 60% of providers would place urgent referrals to ENT or audiology
- Only 19% would initiate oral corticosteroid therapy
- Most providers reported delays beyond 72 hours for audiology (69%) and otolaryngology (72%) evaluation

Overall, only 17% (16 of 95) demonstrated guideline-concordant management. Concordance declined significantly with experience, from 36% among providers with ≤ 10 years to 6% among those with > 20 years (Fisher exact $P = .003$).

Table 1: Knowledge, Diagnostic Confidence, and Management Patterns Related to SSNHL

Survey Measure	n	%
Familiarity with SSNHL		
Never heard of it	16	17
Know a little about it	43	45
Somewhat familiar	28	29
Very familiar	8	8
Confidence in Diagnosing SSNHL with Available Equipment		
Not at all confident	56	59
Somewhat confident	31	33
Very confident	8	8
Most Likely Causes of Sudden Hearing Change (Average Rank*)		
Cerumen impaction	2.3	
Middle ear infection	2.9	
Eustachian tube dysfunction	3.1	
Sensorineural hearing loss	3.3	
Diagnostic Tools Available in Clinic		
Otoscopy	81	85
Tuning forks	39	41
Hearing screening tools	40	42
Initial Management of Suspected SSNHL		
Initiate oral corticosteroids	18	19
Urgent ENT referral	71	75
Urgent Audiology referral	58	61
Reported Access to Specialty Care		
Audiology wait time > 72 h	66	69
Otolaryngology wait time > 72 h	68	72
Guideline-Concordant Management	16	17

*Lower average rank indicates greater perceived likelihood.

Introduction

Sudden sensorineural hearing loss (SSNHL) is an otologic emergency defined as a rapid decline in hearing of at least 30 dB across three contiguous frequencies within a 72-hour period.

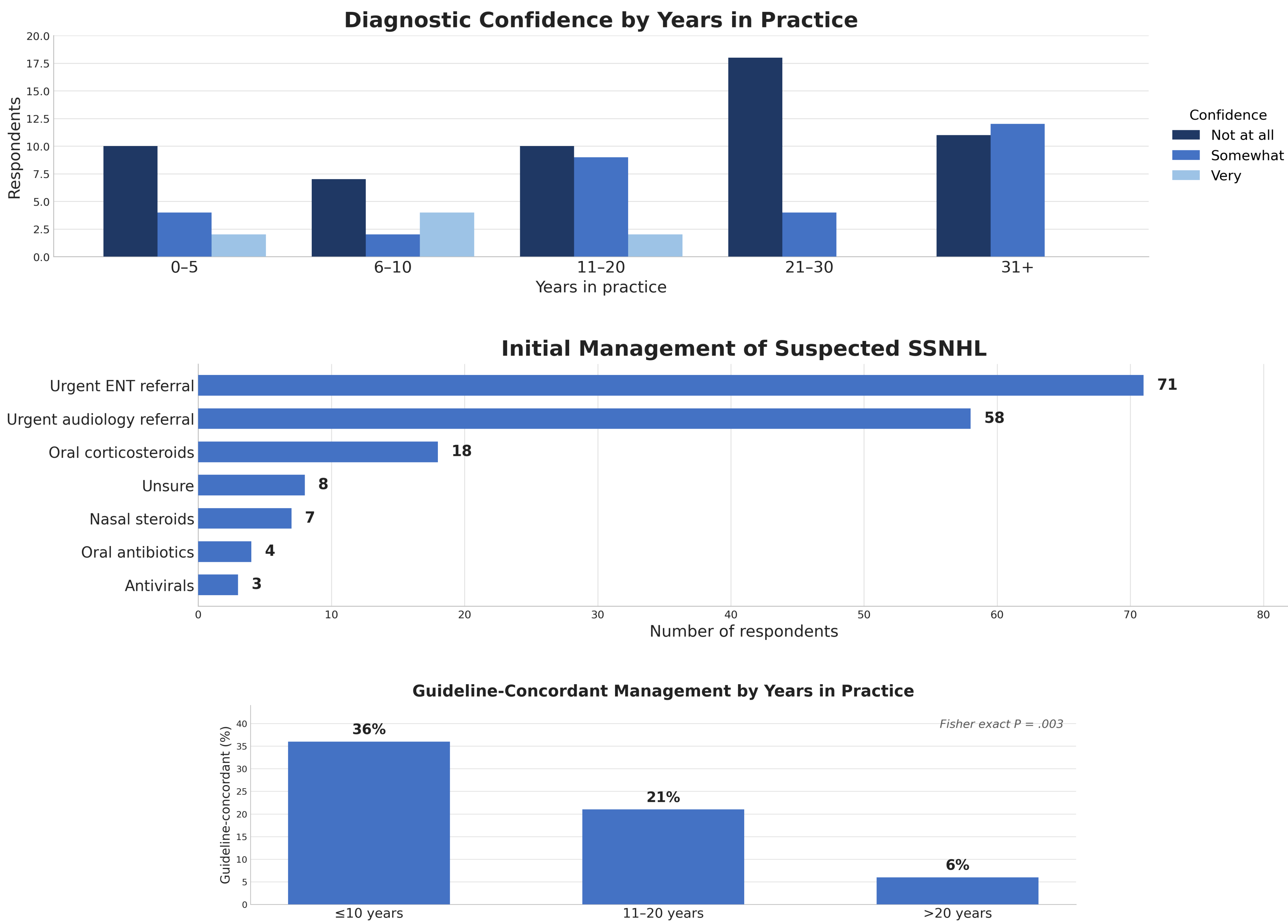
¹Early recognition and prompt initiation of high-dose corticosteroid therapy and specialty referral are critical, as treatment delay is the most important modifiable factor affecting hearing recovery.^{1,2}

Patients with SSNHL often initially present to primary care settings with nonspecific symptoms such as tinnitus, aural fullness, or vertigo, and so both awareness and keen diagnostic reasoning with available in-clinic tools are necessary to establish the diagnosis and initiate appropriate management.³

Despite established clinical guidelines, prior studies suggest substantial variability in the recognition and treatment of SSNHL among non-specialists.³⁻⁵ In addition to knowledge gaps, system-level barriers such as delayed access to audiology and otolaryngology services may further contribute to treatment delays.²⁻⁷

This study evaluates PCP knowledge, diagnostic confidence, and management practices related to SSNHL while identifying barriers to timely care and opportunities for improvement and intervention.

“...only 19% of PCPs would initiate oral corticosteroids for suspected SSNHL despite guideline recommendations”



Discussion

This study demonstrates a substantial gap between guideline recommendations and real-world primary care management of SSNHL. Although most providers recognized the urgency of referral within 72 hours, fewer than 20% would initiate oral corticosteroid therapy when SSNHL was suspected. This represents a critical missed opportunity during the therapeutic window for hearing recovery.

This gap is especially important given that only a minority of providers reported timely access to ENT or audiology services, even with urgent referrals. Potential contributing factors included:

- limited diagnostic confidence
- reduced access to diagnostic tools such as tuning forks

These findings suggest that both educational interventions and structural improvements in referral pathways are needed to improve timely SSNHL management. Targeted education regarding SSNHL diagnosis and treatment may represent the most actionable opportunity for improvement.

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