VA/DoD Clinical Practice Guidelines

Tinnitus

Provider Summary

Version 1.0 | 2024

VA/DoD CLINICAL PRACTICE GUIDELINE FOR TINNITUS

Department of Veterans Affairs

Department of Defense

Provider Summary

QUALIFYING STATEMENTS

The Department of Veterans Affairs (VA) and the Department of Defense (DoD) guidelines are based on the best information available at the time of publication. The guidelines are designed to provide information and assist decision making. They are not intended to define a standard of care and should not be construed as one. Neither should they be interpreted as prescribing an exclusive course of management.

This clinical practice guideline (CPG) is based on a systematic review of both clinical and epidemiological evidence. Developed by a panel of multidisciplinary experts, it provides a clear explanation of the logical relationships between various care options and health outcomes while rating both the quality of the evidence and the strength of the recommendation.

Variations in practice will inevitably and appropriately occur when providers consider the needs of individual patients, available resources, and limitations unique to an institution or type of practice. Therefore, every health care professional using these guidelines is responsible for evaluating the appropriateness of applying them in the setting of any particular clinical situation with a patient-centered approach.

These guidelines are not intended to represent VA or DoD policies. Further, inclusion of recommendations for specific testing, therapeutic interventions, or both within these guidelines does not guarantee coverage of civilian sector care.

Version 1.0 – June 2024

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Introduction

The VA and DoD Evidence-Based Practice Work Group (EBPWG) was established and first chartered in 2004, with a mission to advise the VA/DoD Health Executive Committee "on the use of clinical and epidemiological evidence to improve the health of the population . . ." across the Veterans Health Administration (VHA) and Defense Health Agency (DHA), by facilitating the development of CPGs for the VA and DoD populations.(1) Development and update of VA/DoD CPGs is funded by VA Evidence Based Practice, Office of Quality and Patient Safety. The system-wide goal of evidence-based CPGs is to improve patient health and wellbeing.

VA/DoD EBPWG initiated the creation of the VA/DoD Tinnitus CPG in 2022. This CPG provides an evidence-based framework for evaluating and managing care for adults with bothersome tinnitus toward improving clinical outcomes. Successful implementation of this CPG will:

- Assess the patient's condition and collaborate with the patient, family, and caregivers to determine optimal management of patient care;
- Emphasize the use of patient-centered care and shared decision making;
- Minimize preventable complications and morbidity; and
- Optimize individual health outcomes and quality of life (QoL).

The full VA/DoD Tinnitus CPG, as well as additional toolkit materials including a pocket card and provider summary, can be found at: https://www.healthquality.va.gov/index.asp.

Scope of the CPG

This CPG is based on published clinical evidence and related information available through April 7, 2023. It is intended to provide general guidance on best evidence-based practices (see Appendix A in the full VA/DoD Tinnitus CPG for additional information on the evidence review methodology). Although the CPG is intended to improve the quality of care and clinical outcomes (see Introduction), it is not intended to define a standard of care (i.e., mandated or strictly required care).

This CPG is intended for use by VA, DoD, and community-based providers involved in the care of Veterans and/or Service members and their adult beneficiaries with bothersome tinnitus.

The patient population of interest for this CPG is adult patients (aged 18 years or older) with bothersome tinnitus who are eligible for care in the VA or DoD healthcare delivery systems, and those who receive care from community-based clinicians. It includes Veterans and Service members as well as their adult dependents.

Guideline Development Team

Table 1. Guideline Work Group and Guideline Development Team

Organization	Names*
Department of Veterans Affairs	Robert Folmer, PhD (Champion)
	Tara Zaugg, AuD (Champion)
	Jenifer Beck, AuD
	Khaya Clark, PhD
	Maria Colandrea, DNP, NP-C, CORLN, FAANP
	Catherine Edmonds, AuD, CCC-A, CH-TM
	Catherine Kelley, PharmD
	Elizabeth Lima, PhD
	Sally Mahmood, AuD, CCC-A
	Idalisse Martinez, AuD, FAAA, CH-TM
	Paula Myers, PhD, CCC-A
	Sarah Theodoroff, PhD, CCC-A, FAAA
Department of Defense	LaGuinn Sherlock, AuD, CCC-A, CH-TM (Champion)
	Michele Spencer, AuD, CCC-A, CH-TM (Champion)
	Laurel Alstot, AuD
	Amy Boudin-George, AuD, CCC-A
	Carlos Esquivel, MD, FACS, FAAOA
	Suheily Lovelace, PhD
	David (Nick) Patterson, PharmD, BCPS
	CDR Sara Pulliam, PsyD, ABPP
	LTC Anthony Tolisano, MD
VA Evidence Based Practice, Office of Quality and Patient Safety Veterans Health Administration	James Sall, PhD, FNP-BC
	Jennifer Ballard-Hernandez, DNP, RN, FNP-BC
	René Sutton, BS, HCA, FAC-COR II
	Sarah Davis-Arnold, MSN, RN, NPD-BC, RCIS, EBP-C
	Lisa Wayman, PhD, RN
Clinical Quality Improvement Program Defense Health Agency	Isabella M. Alvarez, MA, BSN, RN
	Cynthia F. Villarreal, BSN, RN
	Lynn M. Young, BSN, RN, CIC
	Gwendolyn Holland, MSN, RN
The Lewin Group	Jennifer Weil, PhD
	Erika Beam, MS
	Kristen Godwin, MPH
	Inveer Nijjar, BS
	Charlie Zachariades, MSc

Organization	Names*
ECRI	Jim Reston, PhD, MPH
	Stacey Uhl, MS
	Dan Sztubinski, BS
	Michele Datko, MS
Sigma Health Consulting	James G. Smirniotopoulos, MD
	Frances M. Murphy, MD, MPH
Duty First Consulting	Kate Johnson, BS
	Anita Ramanathan, BA
	Jake Fausnacht, BS

*Additional contributor contact information is available in Appendix J (in the full VA/DoD Tinnitus CPG).

Patient-centered Care

Intended to consider patient needs and preferences, guideline recommendations represent a whole/holistic health approach to care that is patient-centered, culturally appropriate, and available to people with limited literacy skills and physical, sensory, or learning disabilities. VA/DoD CPGs encourage providers to use a patient-centered, whole/holistic health approach (i.e., individualized treatment based on patient needs, characteristics, and preferences). This approach aims to treat the particular condition while also optimizing the individual's overall health and wellbeing.

Regardless of the care setting, all patients should have access to individualized evidence-based care. Patient-centered care can decrease patient anxiety, increase trust in providers, and improve treatment adherence.(2, 3) A whole/holistic health approach (https://www.va.gov/wholehealth/) empowers and equips individuals to meet their personal health and wellbeing goals. Good communication is essential and should be supported by evidence-based information tailored to each patient's needs. An empathetic and non-judgmental approach facilitates discussions sensitive to sex, culture, ethnicity, and other differences.

Shared Decision Making

This CPG encourages providers to practice shared decision making, a process in which providers, patients, and patient care partners (e.g., family, friends, caregivers) consider clinical evidence of benefits and risks as well as patient values and preferences to make decisions regarding the patient's treatment.(4) Shared decision making is emphasized in *Crossing the Quality Chasm,* an Institute of Medicine, now NAM, report in 2001 (5) and is inherent within the whole/holistic health approach. Providers must be adept at presenting information to their patients regarding individual treatments, expected risks, expected outcomes, and levels or settings of care or both, especially where patient heterogeneity in weighing risks and benefits might exist. Veterans Health Administration and DHA have embraced shared decision making. Providers are encouraged to use shared decision

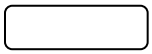
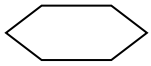
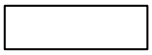
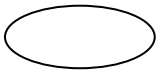
making to individualize treatment goals and plans based on patient capabilities, needs, and preferences.

Algorithm

This CPG's algorithm is designed to facilitate understanding of the clinical pathway and decision-making process used in managing patients with tinnitus. This algorithm format represents a simplified flow of the initial evaluation of tinnitus and management and improvement of QoL with tinnitus and helps foster efficient decision making by providers. It includes

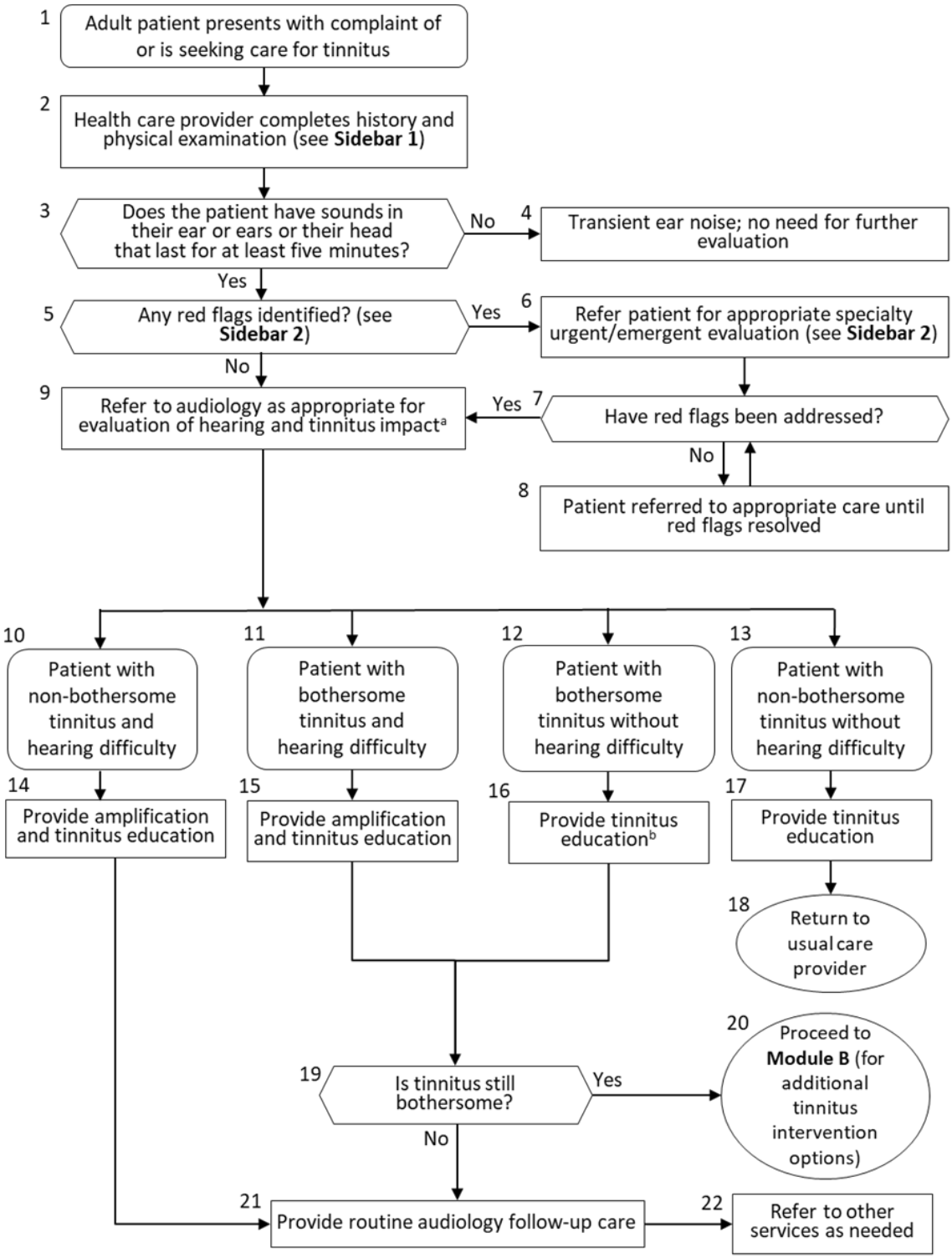
- Steps of care in an ordered sequence,
- Decisions to be considered,
- Decision criteria recommended, and
- Actions to be taken.

The algorithm is a step-by-step decision tree. Standardized symbols display each step, and arrows connect the numbered boxes indicating the order in which the steps should be followed.(6) Sidebars 1–5 provide more detailed information to assist in defining and interpreting elements in the boxes.

Shape	Description
	Rounded rectangles represent a clinical state or condition.
	Hexagons represent a decision point in the process of care, formulated as a question that can be answered "Yes" or "No."
	Rectangles represent an action in the process of care.
	Ovals represent a link to another section within the algorithm.

Appendix L in the full VA/DoD Tinnitus CPG contains alternative text descriptions of the algorithms.

Module A: Initial Evaluation of Tinnitus



[a] If the patient has already been referred to audiology and does not indicate a need for care, then referral to audiology is unnecessary

[b] Provide low gain hearing aids, sound generators, or both, as appropriate.

Sidebar 1: Relevant History and Symptoms

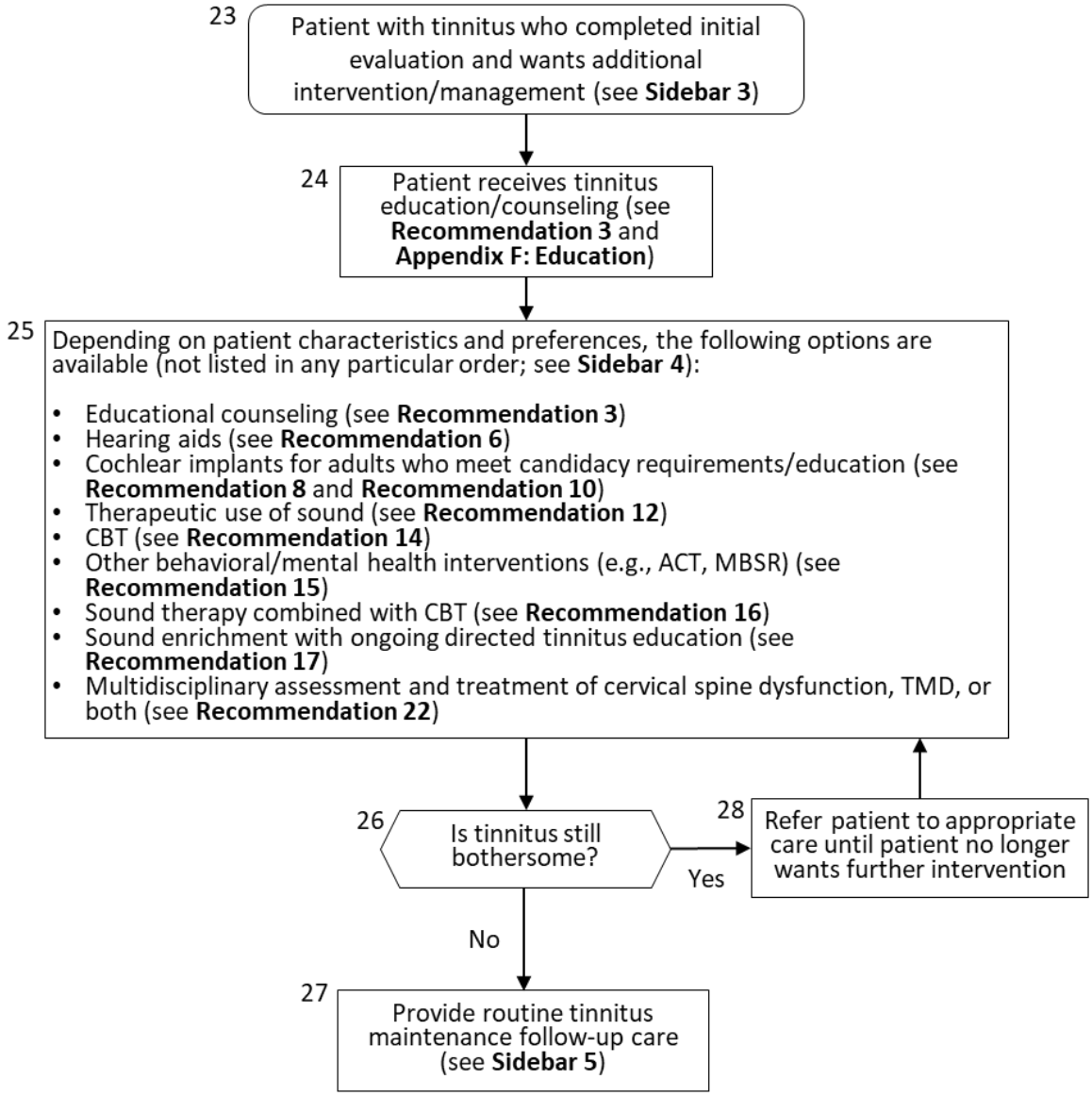
Provider should first rule out transient ear noise, defined as the perception of sound, usually occurring in one ear at a time and described as high-pitched ringing or tone, lasting fewer than five minutes, and sometimes accompanied by a sense of hearing loss and aural fullness. Transient ear noise is common and does not generally require clinical management. If transient ear noise is ruled out, the following pertinent information should be obtained (not in any particular order).

- Frequency, laterality, quality (e.g., pulsatile, non-pulsatile), and intensity of tinnitus
- Circumstance and date of onset of tinnitus
- Impact of tinnitus on sleep, daily activities, or quality of life (screen the patient with a validated instrument, when indicated)
- Hearing loss (e.g., asymmetric, bilateral, unilateral, sudden, recent)
- Ear pressure or fullness with normal ear exam
- Presence of co-occurring conditions, such as anxiety, stress, depression, insomnia, dental issues (e.g., temporomandibular disorder [TMD]), cervical issues
- History of head or neck injury; blast exposure; noise exposure; hearing difficulties; sound tolerance issues; ear pain, drainage, or both; dizziness or vertigo; or possible ototoxic medication (see Appendix C in the full VA/DoD Tinnitus CPG)

Sidebar 2: Suggested Referrals[a]			
Type	**If the patient**	**Refer to**	**Status/Considerations**
Urgent (Red Flag) Referrals	Has neurological deficits such as cranial nerve weakness/paralysis, severe vertigo, or stroke symptoms	Emergency department or otolaryngology	Emergency
	Expresses suicidal ideation	Behavioral/mental health or emergency department or 988 Suicide & Crisis Line	Assess for urgent conditions; report suicide ideation and provide escort, if necessary
	Has sudden or unexplained hearing loss or both and/or reports recent head, neck, or acoustic trauma or any combination of the aforementioned trauma	Audiology and otolaryngology	Emergency; must see audiologist before otolaryngologist as soon as possible, ideally on the same day or within 24 hours
	Has otalgia, otorrhea, vestibular symptoms, and/or sudden onset of pulsatile tinnitus.	Otolaryngology and audiology	Urgent; schedule otolaryngology exam as soon as possible
Non-urgent Referrals	Has depression, anxiety, or insomnia	Behavioral/mental health	Assess for urgent conditions; schedule behavioral/mental health assessment as appropriate
	Has hearing difficulties, sound tolerance issues	Audiology (and otolaryngology pro re nata [PRN])	Non-urgent; schedule audiology exam before patient sees otolaryngologist
	Has orofacial issues such as temporomandibular disorder (TMD)	Dental (and orofacial massage provider PRN)	Non-urgent; schedule dental exam before patient sees orofacial massage provider
	Has neck dysfunction or neck injury	Refer to physiotherapist or physical therapist	Non-urgent

[a] Adapted from Henry et al. (2010) Tinnitus Triage Guide (7)

Module B: Managing and Improving Quality of Life



Abbreviations: ACT: Acceptance and Commitment Therapy; CBT: cognitive behavioral therapy; MBSR: mindfulness-based stress reduction; TMD: temporomandibular disorder

Sidebar 3: Additional Support to Consider
Basic audiological services will adequately address tinnitus-related problems for many patients. For patients requiring further intervention, consider the following to improve quality of life. • Address the hearing problem regardless of the label the patient applies to it. Many people say they want help with tinnitus, but they really are seeking help with hearing difficulties. • Address sound tolerance problems. • Address behavioral/mental health comorbidities (e.g., mood disorders, insomnia). • Address specific problems associated with bothersome tinnitus (e.g., relationships with family members and others). • Address general health and wellness and engage with primary care. • Inform the patient of indications and timeframes when referrals for additional support are needed. • Describe stepped care approach or other patient-centered approaches based on services offered at local facility. • Monitor outcomes.

Sidebar 4: Evidence-Based Practices to Improve Quality of Life with Tinnitus		
Intervention	**Provided by**	**Description**
Educational counseling (see Recommendation 3)	• Audiologist • Otolaryngology • Behavioral/mental health	We suggest education and counseling to aid in decision making, with recommendations to provide patients with information about available management strategies, including counseling and sound therapy options; natural history and prognosis; the association between hearing loss and tinnitus; effects of lifestyle on tinnitus; importance of hearing protection and realistic expectations regarding improving quality of life (QoL) with tinnitus. We also suggest providing brochures, recommending available self-help books, and referring to health care professionals who offer evidence-based tinnitus care.
Hearing aids (activation of sound generator pro re nata [PRN]) (see Recommendations 6 and 7)	Audiologist	Refer to Module A of the Algorithm. We suggest hearing aid evaluation and fitting of hearing aids or combination instruments for patients, as appropriate, to maximize communication function; conduct follow-up assessment with validated hearing aid and tinnitus questionnaires at least one month following device fittings; and assess activation of the sound generator, as warranted.
Cochlear implant considerations when candidacy criteria are met (see Recommendations 8 and 10)	• Audiologist • Otolaryngology	We suggest cochlear implants for patients who derive no benefit from hearing aids and meet cochlear implantation candidacy criteria.

Sidebar 4: Evidence-Based Practices to Improve Quality of Life with Tinnitus		
Intervention	**Provided by**	**Description**
Sound enrichment with ongoing directed tinnitus education by an audiologist (see Recommendation 17)	Audiologist	We suggest sound-based enrichment with ongoing directed tinnitus education by an audiologist with repeated visits over time, such as the following. • **Tinnitus Activities Treatment (TAT)** involves a picture-based approach to counseling on thoughts and emotions, hearing and communication, sleep, and concentration in conjunction with partial masking sound therapy with noise or music set to the lowest level that provides relief. • **Tinnitus Retraining Therapy (TRT)** involves directed counseling aimed at reclassification of tinnitus to a category of neutral signals and sound therapy aimed at weakening tinnitus-related neuronal activity.
CBT (see Recommendation 14)	Behavioral/mental health	**Cognitive Behavioral Therapy (CBT)** is a time-limited structured therapy that aims to recognize and change unhelpful thoughts and behaviors with the goal of improving functioning and quality of life (QoL). See other uses of CBT below.
Sound therapy combined with CBT (see Recommendation 16)	• Audiologist • Behavioral/mental health	• Sound therapy combined with CBT can provide coping strategies to improve QoL with tinnitus even though tinnitus does not change. See above definition of CBT. • **Progressive Tinnitus Management (PTM):** The stepped-care program offers a standardized curriculum skills education intervention following basic audiologic care. The skills education is delivered collaboratively by an audiologist and a behavioral health care provider. The audiologist teaches patients about using sound to improve QoL with tinnitus and provides ongoing structure and support as the patients try out various sounds away from sessions to learn which sounds help them reach their goals for living better with tinnitus. The behavioral health care provider teaches coping strategies rooted in CBT, such as employing relaxation techniques, planning pleasant activities, and balancing thoughts and feelings. The behavioral health care provider also provides a structure for patients to try various CBT skills outside visits to learn which of those strategies help them reach their goals for living better with tinnitus. The combination of CBT and sound-based strategies allows patients access to a wide variety of strategies to try to discover which ones work best for them as an individual. Multiple visits as part of the PTM program provide structure and support as patients incorporate newly learned strategies into their daily lives.

Sidebar 4: Evidence-Based Practices to Improve Quality of Life with Tinnitus		
Intervention	**Provided by**	**Description**
Other behavioral/mental health interventions (e.g., ACT, cognitive therapy, MBSR, relaxation) (see Recommendation 15)	Behavioral/mental health	Behavioral/mental health interventions (such as the following below) for bothersome tinnitus. • **Acceptance and Commitment Therapy (ACT)** is an action-oriented approach to psychotherapy that aims to help patients stop avoiding, denying, and struggling with inner emotions and instead accept these feelings as appropriate responses to certain situations that should not prevent them from moving forward in their lives to accept their tinnitus and to commit to making necessary changes in their behavior, regardless of what is happening in their lives and how they feel about it. By taking steps to change behavior while at the same time learning to accept psychological experiences, individuals can eventually change their attitudes and emotional states. • **Mindfulness-Based Stress Reduction® (MBSR)** is a specific protocol involving secular intensive mindfulness training. • **Mindfulness** is moment-to-moment awareness of one's experience without clinging to judgements the mind naturally makes, which can reduce the negative impact of tinnitus.
Multidisciplinary approach for assessment and treatment of patients with bothersome tinnitus and temporomandibular disorder (TMD), cervical spine dysfunction, or both (see Recommendation 22)	• Audiologist • Dental provider • Physical therapist • Physiotherapist • Orofacial massage provider • Otolaryngology	We suggest multidisciplinary orofacial treatment, treatment of the cervical spine, or both for patients with somatosensory tinnitus influenced by TMD or cervical spine dysfunction.

Sidebar 5: Maintenance and Support

When individuals with bothersome tinnitus learn to cope better with the tinnitus functional impact, opportunities exist to plan for maintenance for the additional supports that might be needed to maintain or enhance quality of life with tinnitus. The collaborative planning process should incorporate the following.

- Education about tinnitus, including information about hearing conservation, personalized effectiveness of sound therapy and other strategies for clinical management, and opportunities for general wellness
- Shared decision making with the patient, patient care partners (where appropriate), and the multidisciplinary team
- Issues to think about
  - Defining the relationship with the provider, management team, or both; scheduling appointments, other contacts, and procedures for addressing urgent needs and referrals to other providers for management of co-occurring conditions
  - Planning monitoring of symptoms and adherence to an action plan
  - Discussing methods and availability of tools to support day-to-day self-monitoring
- Engaging caregivers, family members, and significant others in monitoring the need for additional support; when appropriate, identifying early warning signs of hearing loss or increased tinnitus with dangerously loud sounds and reporting sudden changes in hearing or tinnitus to the individual's provider

Recommendations

The evidence-based clinical practice recommendations listed in Table 2 were made using a systematic approach considering four domains as per the GRADE approach (see Summary of Guideline Development Methodology in the full VA/DoD Tinnitus CPG). These domains include confidence in the quality of the evidence, balance of desirable and undesirable outcomes (i.e., benefits and harms), patient values and preferences, and other implications (e.g., resource use, equity, acceptability). Due to rigorous adherence to GRADE methodology (e.g., lack of RCTs, study design limitations), the VA/DoD Tinnitus CPG Work Group did not have the evidence to make strong recommendations for this CPG.

Some of the recommendations use the qualifier term "tinnitus management." The Work Group wants to emphasize that tinnitus management does not solely refer to the sound and perception of tinnitus. Evidence-based, patient-centered clinical care for tinnitus generally focuses on the impact of tinnitus on QoL, well-being, wellness, self-care, and management of co-occurring chronic conditions to improve clinical outcomes.

Table 2. Evidence-based Clinical Practice Recommendations with Strength and Category

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Monitoring		1.	We suggest using validated subjective outcome measures (e.g., Tinnitus Functional Index, Tinnitus Handicap Inventory) to monitor the effectiveness of tinnitus management.	Weak for	Reviewed, New-added
		2.	We suggest against psychoacoustic measures (e.g., minimum masking level, loudness matching) to monitor the effectiveness of tinnitus management.	Weak against	Reviewed, New-added
Education and Self-Management		3.	We suggest educational counseling to reduce the functional impact of tinnitus.	Weak for	Reviewed, New-added
		4.	There is insufficient evidence to recommend for or against the use of web-based or app-based self-management for tinnitus.	Neither for nor against	Reviewed, New-added
		5.	There is insufficient evidence to recommend for or against the use of computer-based games, training programs, or both for tinnitus self-care.	Neither for nor against	Reviewed, New-added
Amplification Devices	*Non-surgical*	6.	We suggest hearing aids for tinnitus management in adults with hearing loss (see narrative for discussion of patients without hearing loss).	Weak for	Reviewed, New-added
		7.	There is insufficient evidence to recommend for or against contralateral routing of signal/sound (CROS) hearing aids for tinnitus management in adults with single-sided deafness.	Neither for nor against	Reviewed, New-added
	Surgical	8.	We suggest cochlear implantation for tinnitus management in adults who meet candidacy requirements.	Weak for	Reviewed, New-added
		9.	There is insufficient evidence to recommend for or against implantable bone conduction devices (BCD) for tinnitus management in adults with single-sided deafness.	Neither for nor against	Reviewed, New-added
		10.	We suggest cochlear implants over implantable bone conduction devices (BCD) or contralateral routing of signal/sound (CROS) hearing aids for tinnitus management in adults with single-sided deafness who meet candidacy requirements.	Weak for	Reviewed, New-added
Sound-Based Intervention Alone		11.	There is insufficient evidence to recommend for or against auditory cognitive training (e.g., frequency discrimination training, auditory attention training) for the reduction of tinnitus distress and functional impact.	Neither for nor against	Reviewed, New-added
		12.	We suggest the therapeutic use of sound for tinnitus self-care.	Weak for	Reviewed, New-added
		13.	There is insufficient evidence to recommend for or against sound therapy with altered music (e.g., notched music therapy, spectrally altered music) to reduce the impact of tinnitus.	Neither for nor against	Reviewed, New-added

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Behavioral Intervention Alone		14.	We suggest cognitive behavioral therapy (CBT) by a trained provider for adults with bothersome tinnitus.	Weak for	Reviewed, New-added
		15.	There is insufficient evidence to recommend for or against the following psychological interventions by a trained provider for adults with bothersome tinnitus (unranked). • Acceptance and Commitment Therapy (ACT) • Mindfulness-based therapies • Mindfulness-Based Stress Reduction (MBSR)	Neither for nor against	Reviewed, New-added
Combined Sound-Based and Behavioral Intervention		16.	We suggest sound therapy combined with cognitive behavioral therapy (CBT) for tinnitus management by a multidisciplinary team.	Weak for	Reviewed, New-added
		17.	We suggest sound enrichment with ongoing directed tinnitus education by an audiologist.	Weak for	Reviewed, New-added
Neuromodulation/ Neurostimulation		18.	There is insufficient evidence to recommend for or against repetitive transcranial magnetic stimulation (rTMS) for tinnitus management.	Neither for nor against	Reviewed, New-added
		19.	There is insufficient evidence to recommend for or against transcutaneous electric nerve stimulation (TENS) for tinnitus management.	Neither for nor against	Reviewed, New-added
		20.	There is insufficient evidence to recommend for or against transcranial direct current stimulation (tDCS) for tinnitus management.	Neither for nor against	Reviewed, New-added
		21.	We suggest against low-level laser therapy for tinnitus management.	Weak against	Reviewed, New-added
Manual Therapy		22.	We suggest a multidisciplinary approach for the assessment and treatment of patients with bothersome tinnitus and temporomandibular disorder (TMD), cervical spine dysfunction, or both to reduce the functional impact of tinnitus.	Weak for	Reviewed, New-added
Complementary and Integrative Health		23.	There is insufficient evidence to recommend for or against acupuncture for tinnitus management.	Neither for nor against	Reviewed, New-added

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Herbals, Nutraceuticals, Supplements		24.	We suggest against the use of ginkgo biloba, dietary or herbal supplements, or nutraceuticals for tinnitus management.	Weak against	Reviewed, New-added
Pharmaco-therapy		25.	We suggest against the use of anticonvulsants, antidepressants, antiemetics, antithrombotics, betahistine, intratympanic corticosteroid injections, or n-methyl d-aspartic acid (NMDA) receptor antagonists for tinnitus management.	Weak against	Reviewed, New-added

[a] For additional information, see Determining Recommendation Strength and Direction in the full VA/DoD Tinnitus CPG.

[b] For additional information, see Recommendation Categorization in the full VA/DoD Tinnitus CPG.

Routine Care

Patients who report tinnitus during a clinical evaluation should be asked additional questions regarding initial onset, frequency of occurrence, duration, and laterality. In some cases (e.g., unilateral tinnitus, pulsatile tinnitus), the patient should be referred for a medical workup (see Algorithm). The provider must also determine whether the patient is bothered by their tinnitus and the extent to which it interferes with daily activities or QoL. When such problems are reported, the patient is characterized as having bothersome tinnitus and might need additional evaluation to facilitate appropriate recommendations and referrals, as described below.

Tinnitus Education

A review of tinnitus education concluded that educating patients about tinnitus is essential in the plan of care to reduce the functional impact of tinnitus and improve QoL.(8) Tinnitus education can be provided in person, virtually, individually, and in group sessions. Identifying patients' expectations about outcomes and shared goals is important. More detailed information can be found in Appendix F in the full VA/DoD Tinnitus CPG.

Methods

The methodology used in developing this CPG follows the *Guideline for Guidelines*, an internal document of the VA/DoD EBPWG updated in January 2019 that outlines procedures for developing and submitting VA/DoD CPGs.(9) The *Guideline for Guidelines* is available at http://www.healthquality.va.gov/policy/index.asp. This CPG also aligns with the National Academy of Medicine's (NAM) principles of trustworthy CPGs (e.g., explanation of evidence quality and strength, management of potential conflicts of interest [COI], interdisciplinary stakeholder involvement, use of SR and external review).(10) Appendix A in the full VA/DoD Tinnitus CPG provides a detailed description of the CPG development methodology.

The Work Group used the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) approach to craft each recommendation and determine its strength. Per the GRADE approach, recommendations must be evidence based and cannot be made based on expert opinion alone. The GRADE approach uses the following four domains to inform the strength of each recommendation (see Determining Recommendation Strength and Direction in the full VA/DoD Tinnitus CPG).(11)

1. Confidence in the quality of the evidence
2. Balance of desirable and undesirable outcomes
3. Patient values and preferences
4. Other considerations, as appropriate (e.g., resource use, equity, acceptability, feasibility, subgroup considerations)

Using these four domains, the Work Group determined the relative strength of each recommendation (*Strong* or *Weak*). The strength of a recommendation is defined as the extent to which one can be confident that the desirable effects of an intervention outweigh its undesirable effects and is based on the framework above, which incorporates the four domains.(12) A *Strong* recommendation generally indicates *High* or *Moderate* confidence in the quality of the available evidence, a clear difference in magnitude between the benefits and harms of an intervention, similar patient values and preferences, and understood influence of other implications (e.g., resource use, feasibility).

In some instances, insufficient evidence exists on which to base a recommendation for or against a particular therapy, preventive measure, or other intervention. For example, the systematic evidence review might have found little or no relevant evidence, inconclusive evidence, or conflicting evidence for the intervention. The manner in which this finding is expressed in the CPG might vary. In such instances, the Work Group might include among its set of recommendations a statement of insufficient evidence for an intervention that might be in common practice although it is unsupported by clinical evidence and particularly if other risks of continuing its use might exist (e.g., high opportunity cost, misallocation of resources). In other cases, the Work Group might decide to exclude this type of statement about an intervention. For example, the Work Group might remain silent where an absence of evidence occurs for a rarely used intervention. In other cases, an intervention might have a favorable balance of benefits and harms but might be a standard of care for which no recent evidence has been generated.

Using these elements, the Work Group determines the strength and direction of each recommendation and formulates the recommendation with the general corresponding text as shown in Table 3.

Table 3. Strength and Direction of Recommendations and General Corresponding Text

Recommendation Strength and Direction	General Corresponding Text
Strong for	We recommend . . .
Weak for	We suggest . . .
Neither for nor against	There is insufficient evidence to recommend for or against . . .
Weak against	We suggest against . . .
Strong against	We recommend against . . .

The GRADE of each recommendation made in the 2024 VA/DoD Tinnitus CPG can be found in the section on Recommendations. Additional information regarding the use of the GRADE system can be found in Appendix A in the full VA/DoD Tinnitus CPG.

References

1. U.S. Department of Veterans Affairs/Department of Defense Health Executive Committee (HEC). Evidence based practice work group charter [updated January 9, 2017]. Available from: www.healthquality.va.gov/documents/EvidenceBasedPracticeWGCharter123020161.pdf.
2. Robinson JH, Callister LC, Berry JA, Dearing KA. Patient-centered care and adherence: Definitions and applications to improve outcomes. J Am Acad Nurse Pract. 2008;20(12):600-7. Epub 2009/01/06. doi: 10.1111/j.1745-7599.2008.00360.x. PubMed PMID: 19120591.
3. Stewart M, Brown JB, Donner A, McWhinney IR, Oates J, Weston WW, et al. The impact of patient-centered care on outcomes. J Fam Pract. 2000;49(9):796-804. Epub 2000/10/14. PubMed PMID: 11032203.
4. National Learning Consortium. Shared decision making 2013. Available from: https://www.healthit.gov/sites/default/files/nlc_shared_decision_making_fact_sheet.pdf.
5. Institute of Medicine. Crossing the quality chasm: A new health system for the 21st century. Washington DC: National Academies Press, 2001.
6. Society for Medical Decision Making Committee on Standardization of Clinical Algorithms. Proposal for clinical algorithm standards. Med Decis Making. 1992;12(2):149-54. Epub 1992/04/01. PubMed PMID: 1573982.
7. Henry JA, Zaugg TL, Myers PJ, Kendall CJ, Michaelides EM. A triage guide for tinnitus. Journal of Family Practice. 2010;59(7):389. PubMed PMID: 20625568.
8. Henry JA, Quinn CM. Sound therapy for tinnitus: Options for audiologists. ASHA Special Interest Groups. 2020;5:669-83. doi: 10.1044/2020_PERSP-19-00156.
9. U.S. Department of Veteran Affairs, Department of Defense. Guideline for guidelines: Veterans Health Administration, Office of Quality & Performance, Evidence Review Subgroup [updated January 29, 2019]. Available from: http://www.healthquality.va.gov/policy/index.asp.
10. Ransohoff DF, Pignone M, Sox HC. How to decide whether a clinical practice guideline is trustworthy. JAMA. 2013;309(2):139-40. Epub 2013/01/10. doi: 10.1001/jama.2012.156703. PubMed PMID: 23299601.
11. Andrews JC, Schunemann HJ, Oxman AD, Pottie K, Meerpohl JJ, Coello PA, et al. Grade guidelines: 15. Going from evidence to recommendation-determinants of a recommendation's direction and strength. J Clin Epidemiol. 2013;66(7):726-35. Epub 2013/04/11. doi: 10.1016/j.jclinepi.2013.02.003. PubMed PMID: 23570745.
12. Andrews J, Guyatt G, Oxman AD, Alderson P, Dahm P, Falck-Ytter Y, et al. Grade guidelines: 14. Going from evidence to recommendations: The significance and presentation of recommendations. J Clin Epidemiol. 2013;66(7):719-25. Epub 2013/01/15. doi: 10.1016/j.jclinepi.2012.03.013. PubMed PMID: 23312392.

Access to the full guideline and additional resources is available at: https://www.healthquality.va.gov/.