Dysphonia (Hoarseness): AAO-HNSF Releases Updated Clinical Guideline for Treatment

Dysphonia is a condition that is characterized by altered vocal quality, pitch, loudness, or vocal effort that impairs quality of life. Technically, dysphonia is a change in voice production detected on clinical examination, whereas hoarseness is the symptom reported by the patient. About one-third of the population will be affected by dysphonia during their lifetime. Several billion dollars in lost productivity from work absenteeism and frequent clinic visits are attributed to dysphonia annually. To improve the quality of care for patients of all ages with dysphonia, the American Academy of Otolaryngology–Head and Neck Surgery Foundation (AAO-HNSF) updated guidelines to reduce inappropriate variations in care, produce optimal health outcomes, and minimize harm.

**Recommendations**

**IDENTIFICATION OF ABNORMAL VOICE**

Based on observational studies, it is recommended that physicians diagnose dysphonia in patients with altered voice quality, pitch, loudness, or vocal effort that impairs quality of life. An assessment of voice quality and information from caregivers should be relied on rather than clinical tests. Hoarseness reported by the patient or caregiver should be considered a symptom of altered voice quality. Note that patients often discount dysphonia symptoms, which can lead to a delay in seeking treatment. Raising awareness of dysphonia and its effects on quality of life, or as a sign of a more serious underlying condition, could encourage patients to seek medical treatment earlier.

**IDENTIFYING UNDERLYING CAUSES**

Based on observational studies, it is recommended that physicians perform a history and physical examination to determine the underlying causes of dysphonia. The examination also helps the physician determine the severity of the dysphonia, develop a treatment plan, and escalate care if needed. Potential causes include traumatic, infectious, inflammatory, neurologic, metabolic, neoplastic, congenital, and behavioral factors. Certain medications can contribute to dysphonia, including inhaled corticosteroids, antihistamines, anticholinergics, angiotensin-converting enzyme inhibitors, and hormone therapies (e.g., testosterone).

**ESCALATION OF CARE**

It is strongly recommended that physicians identify factors such as recent surgical procedures involving the head, neck, or chest; recent endotracheal intubation; presence of concomitant neck mass; respiratory distress; history of tobacco use; and professional voice use, all of which could indicate the need for laryngoscopy, referral, or other treatments. Observational studies showed that identifying these factors early in the treatment process influences the timing of therapy, choice of interventions, and follow-up care.

**LARYNGOSCOPY**

The guideline recommends the option of using laryngoscopy at any time for diagnosis based on observational studies and expert opinion. Laryngoscopy provides a visual picture of the larynx and can help avoid misdiagnosis or delayed diagnosis. Physicians should perform laryngoscopy if dysphonia does not resolve within four weeks or if a serious underlying condition is suspected.

**Key Points for Practice**

- Dysphonia can be diagnosed in patients with altered voice quality, pitch, loudness, or vocal effort that impairs quality of life.
- Laryngoscopy should be performed if dysphonia does not resolve within four weeks or if a serious underlying condition is suspected.
- Antireflux medications should not be used in the absence of symptoms of gastroesophageal reflux disease or laryngopharyngeal reflux.

From the AFP Editors

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This series is coordinated by Sumi Sexton, MD, Editor-in-Chief.

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CME This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz on page 568.

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IMAGING
Physicians should not perform computed tomography or magnetic resonance imaging in patients with impaired voice symptoms before laryngoscopy. This recommendation is based on observational studies and is intended to help reduce harm from radiation, unnecessary expense, and variations of care. These studies are not necessary for most patients because the cause of dysphonia can usually be identified by laryngoscopy.

ANTIREFLUX MEDICATION
The guideline recommends limiting the use of antireflux medications for dysphonia without symptoms of gastroesophageal reflux disease or laryngopharyngeal reflux. This recommendation is based on limited randomized trials and observational studies.

CORTICOSTEROID THERAPY
Based on randomized trials showing adverse effects, corticosteroids should not be prescribed for dysphonia before laryngoscopy has been performed. Although corticosteroids are commonly prescribed to treat dysphonia, there is no evidence of their effectiveness, and the adverse effects of using short- or long-term corticosteroids can be serious. In specific populations such as professional voice users, the use of short-term corticosteroids as a treatment should be discussed with the patient, including the risks and limited benefits.

ANTIMICROBIAL THERAPY
The guideline strongly recommends against prescribing antibiotics for dysphonia based on systematic reviews and randomized trials that showed antibiotics to be ineffective. Acute viral laryngitis is the cause of dysphonia in most patients and is not a bacterial infection; therefore, antibiotics would be ineffective. Additionally, overuse of antibiotics exposes patients to unnecessary costs and adverse effects.

LARYNGOSCOPY BEFORE VOICE THERAPY
Based on observational studies, the guideline recommends that laryngoscopy should be performed before voice therapy is prescribed. Laryngoscopy results should be communicated to the speech-language pathologist. Voice therapy is strongly recommended for patients with dysphonia from a cause likely to improve from the treatment.

SURGERY
Surgery is a recommended option based on observational studies for patients with malignancy, benign vocal fold lesions that have not responded to conservative treatment, recurrent respiratory papillomatosis, and glottic insufficiency. Surgery should not be used as primary treatment for most patients with dysphonia.

BOTULINUM TOXIN
Botulinum toxin injection should be offered to patients with suspected spasmodic dysphonia or laryngeal dystonia. This treatment is not approved by the U.S. Food and Drug Administration; however, it is approved by the Centers for Medicare and Medicaid Services as an off-label therapy for spasmodic dysphonia or laryngeal dystonia. This recommendation is based on limited randomized controlled trials. Note that spasmodic dysphonia is not life-threatening, and many patients choose not to pursue treatment.

EDUCATION AND PREVENTION
Physicians should educate patients about preventive measures and behavioral strategies that could decrease the risk of dysphonia, improve vocal hygiene, and prevent dysphonia in patients at high risk. Preventive options include hydration, avoidance of irritants, and voice training. Behavioral modification includes no yelling and avoiding smoking, dehydration, and consumption of alcohol, caffeine, and medications that can dry the throat.

OUTCOMES
Based on randomized trials and cohort studies, it is recommended that physicians monitor the patient until dysphonia has improved or the underlying condition has been diagnosed. If the condition does not resolve, physicians should perform laryngoscopy or refer the patient to a subspecialist.

Guideline source: American Academy of Otolaryngology—Head and Neck Surgery Foundation
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