

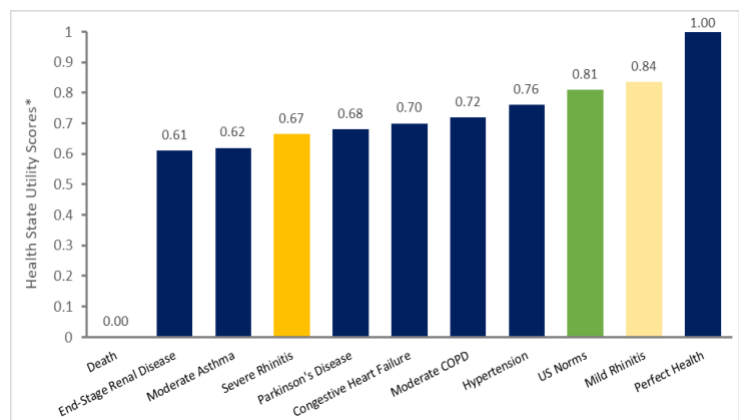
Posterior Nasal Nerve (PNN) Ablation for Chronic Rhinitis

Purpose

The American Academy of Otolaryngic Allergy (AAOA) has developed this clinical care statement to provide guidance to healthcare providers in understanding the role of minimally invasive Posterior Nasal Nerve (PNN) Ablation in patients with moderate to severe chronic rhinitis who are refractory to medical management. Physicians with training and expertise in PNN ablation are able to perform this procedure in their own office or outpatient setting.

Burden of Illness

Chronic rhinitis is a persistent inflammatory condition characterized by nasal congestion, nasal obstruction, rhinorrhea, itching, post-nasal drip, irritated throat, coughing, and sneezing.^{1,2} These symptoms frequently impair sleep, cognitive performance, daily functioning, and overall quality of life.³⁻⁷ Chronic rhinitis has been associated with fatigue, mood disturbance, reduced productivity, absenteeism, and presenteeism in work and educational settings.³⁻⁷ The cumulative societal burden is substantial and often underrecognized.³⁻⁸



* Health state values are a measure of preference-based health-related quality of life (i.e., represent an individual's valuation or preference for being in a particular health state). They are defined on a scale from 0.0-1.0, with 0.0 representing death and 1.0 representing perfect health. COPD, chronic obstructive pulmonary disease; US, United States. Adapted from Saler et al. (2011).⁸

Despite availability of pharmacologic therapies, a significant proportion of patients remain inadequately controlled. Medication nonadherence is common,⁹ and long-term pharmacologic therapy may be limited by tolerability, side effects, or contraindications —making chronic rhinitis one of the most underappreciated yet costly and debilitating chronic upper airway diseases in modern populations.¹⁰ As a result, many patients experience ongoing symptoms that warrant consideration of procedural intervention.

Clinical Rationale

Chronic rhinitis encompasses allergic, nonallergic and mixed phenotypes. A substantial component of symptom generation is mediated by parasympathetic neural input to the nasal mucosa through branches of the posterior nasal nerve (PNN). Dysregulated neural signaling contributes to excessive glandular secretion, vascular engorgement, and mucosal hyperreactivity.^{11,12}

PNN ablation modulates parasympathetic nerve activity within the posterior lateral nasal wall. By targeting this neural pathway, PNN ablation reduces neurogenic stimulation responsible for rhinorrhea and congestion across rhinitis subtypes.^{4,13-22} This mechanism serves as a biologic basis for minimally invasive interventions targeting neurogenic rhinitis.

Traditional surgical approaches such as posterior nasal nerve neurectomy and vidian neurectomy also target neural pathways but require general anesthesia. A vidian neurectomy carries risks including facial and oral numbness and post-operative bleeding.^{23,24} Dry eyes may occur in as many as 35% of patients

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treated with vidian neurectomy.²³ In contrast, office-based PNN ablation using radiofrequency or cryotherapy offers a minimally invasive alternative with favorable safety profiles.

Devices used for radiofrequency and cryotherapy PNN ablation have received FDA clearance for treatment of chronic rhinitis.²⁵

Multiple prospective and randomized controlled trials demonstrate statistically and clinically significant improvements in validated symptom and quality of life measures following PNN ablation. Outcomes include:^{16,18,26-34}

- 68–92% responder rates (≥30% TNSS reduction)
- 48–67% mean TNSS reduction
- 58–83% improvement in MiniQLQ quality of life survey
- Durable improvement through 2 - 3 years
- Low rates of device-related complications

	PNN Ablation	
Procedure	Radiofrequency Ablation	Cryoablation
Symptoms Addressed	Rhinorrhea, Congestion, Sneezing, Itching, Cough, Post-nasal Drip	
Site of Service	Predominantly Office-based , Operating room, Ambulatory Surgery Center	
Anesthesia Requirement	Local Anesthesia	
Time to Recovery	Can resume activities within 24 hours	

The American Rhinologic Society (ARS)²³ and the American Academy of Otolaryngology – Head and Neck Surgery (AAO-HNS)³⁵ have issued formal position statements supporting PNN ablation as a medically necessary treatment modality for the treatment of chronic rhinitis.

The American Medical Association (AMA) established a Category I CPT Code 31242 for radiofrequency (RF) energy destruction of the PNN, and CPT Code 31243 for cryotherapeutic destruction of the PNN, effective January 1, 2024.

Indications

PNN ablation is an appropriate treatment option for adult patients with moderate to severe chronic rhinitis who remain symptomatic despite appropriate medical therapy or who cannot tolerate pharmacologic treatment.³⁵ The goal of intervention is reduction of persistent rhinorrhea and/or congestion that meaningfully impairs quality of life.

*American Academy of Otolaryngic Allergy (AAOA) Clinical Care Statement – PNN Ablation 2026***Suggested Patient Selection Criteria**

The following criteria are offered as guidance to support appropriate patient selection.³⁶⁻⁴⁴ Clinical judgment should be applied in all cases.

Suggested Patient Selection Criteria for Coverage of CPT Codes 31242 and 31243
A. Age Adult patient (≥18 years) AND
B. Symptom Duration Presence of at least two nasal symptoms (congestion, rhinorrhea, sneezing, itching) for at least 1 hour per day for ≥12 weeks.^{36,37} At least one of the two nasal symptoms should be either congestion or rhinorrhea. AND
C. Disease Severity Moderate to severe symptom burden documented by a validated outcome measure (e.g., SNOT22 subscore, TNSS, or VAS) AND
D. Failure or Intolerance of Medical Management Documented failure of appropriate pharmacotherapy defined as: • ≥4 weeks continuous intranasal corticosteroid sprays • and/or intranasal antihistamine therapy • and/or anticholinergic sprays when appropriate³⁶⁻⁴⁴ with documentation of: Persistent moderate to severe symptoms despite adherence to therapy OR Documented intolerance or contraindication to medical therapy

Contraindications

PNN ablation is not appropriate in the presence of:

- active nasal or sinus infection
- uncontrolled coagulopathy
- significant anatomic obstruction preventing safe device access
- untreated chronic rhinosinusitis requiring alternative surgical management
- pregnancy when elective procedural intervention should be deferred
- inability to tolerate office-based procedure

Relative contraindications should be evaluated on an individual basis.

Safety Considerations

PNN ablation is generally well tolerated when performed by trained physicians in an office or outpatient setting. Reported adverse effects are typically mild and transient and may include temporary discomfort, crusting, or bleeding. Serious complications are uncommon.

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Proper patient counseling and adherence to device-specific protocols are essential to minimize risk.

Statement

The American Academy of Otolaryngic Allergy (AAOA) recognizes posterior nasal nerve (PNN) ablation as a safe and effective minimally invasive treatment option for appropriately selected adult patients with chronic rhinitis who remain symptomatic despite appropriate medical therapy. When performed by qualified physicians, PNN ablation represents a medically reasonable intervention supported by high-quality evidence, including randomized, sham-controlled trials demonstrating significant and durable improvement in validated symptom measures.

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