

The \$65 Billion Blind Spot: Unlocking Advanced Therapy Adoption in U.S. Overactive Bladder Management

A Healthcare Analytics Assessment of Market Opportunity, Physician Dynamics, and the ITNM Growth Inflection | United States, 2025–2030

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Background & Problem Statement

Why does this topic matter — and what is the core gap?

What is OAB?

Overactive Bladder (OAB) is a chronic urological condition causing sudden urgency to urinate, frequent urination (day & night), and in many cases involuntary leakage. It affects quality of life comparably to diabetes or COPD.

1st Line — Behavioural Therapy & Lifestyle Modification

2nd Line — Pharmacotherapy (Anticholinergics / Beta-3 agonists)

3rd Line — Advanced Therapies: Botox | PTNM | SNM | ITNM

16–24M

Symptomatic U.S. Adults

~5M

Seek Care Annually

500–600K

Refractory (Eligible for Advanced Therapy)

~185K

Actually Receive Advanced Therapy

The Core Gap: Only ~1% of symptomatic OAB patients receive advanced therapy. Nearly 365,000 refractory patients — already clinically eligible — go untreated each year.

Structural Undertreatment — Not Therapeutic Failure — Is the OAB Market's Defining Problem

THE STRATEGIC PARADOX

- OAB affects an estimated **16–24 million** U.S. adults — a disease burden comparable to diabetes, generating **~\$65–76B** in annual societal cost. Quality-of-life decrements equal those of COPD and chronic stroke.
- Four FDA-approved advanced therapies exist (Botox, PTNM, SNM, ITNM) with demonstrated **60–79% clinical responder rates** across the category. Guideline coverage has never been more permissive than post-2024.
- Yet collectively these four therapies reach **fewer than 200,000 new patients annually** — approximately 1% of the symptomatic population and ~34% of the already-eligible refractory pool of 500K–600K patients.

~1%

Of symptomatic OAB adults receive
advanced therapy annually

VS

CORE RESEARCH FINDINGS

FINDING 1: The funnel leaks at every transition — the largest single loss (~75%) occurs at symptom-to-care-seeking, driven by the misconception that incontinence is "normal" ageing — not by clinical ineligibility.

FINDING 2: FPMRS-trained specialists refer to advanced therapy at **15×** the rate of untrained general urologists — yet 7,000+ urologists remain untrained, constituting the most actionable bottleneck.

FINDING 3: The 2024 AUA/SUFU guideline update, 2024 Boston Scientific/Axonics acquisition, and 2025 ITNM device approval have created an **18–24-month strategic window** unlike any in OAB's treatment history.

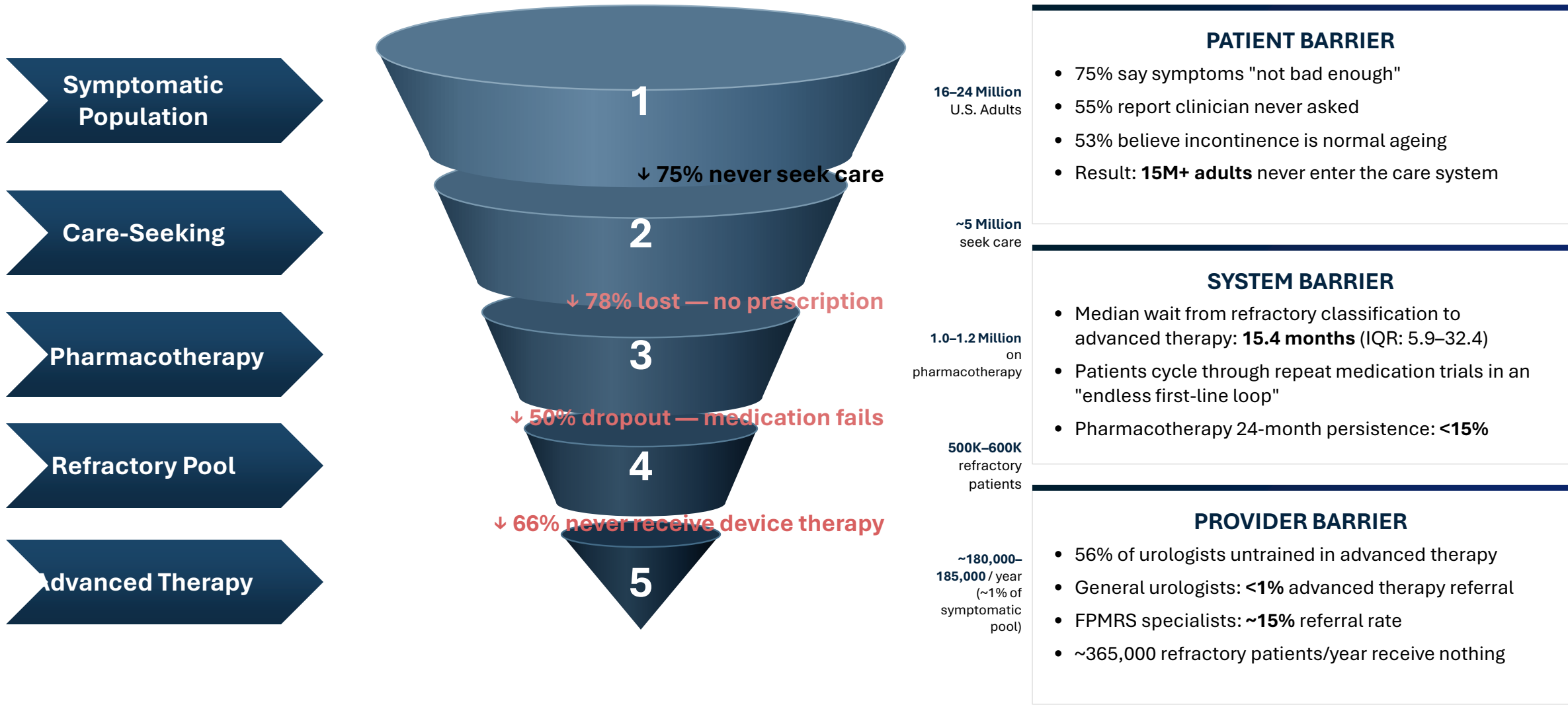
FINDING 4: ITNM is projected to grow from ~5,000 to ~100,000 annual procedures by 2030 (**82% CAGR**) — the fastest growth in any advanced therapy segment — driven by guideline recognition and office-based workflow alignment.

FINDING 5: The market is not constrained by science. It is constrained by **structural inefficiencies** in patient identification, provider training distribution, and referral pathway activation — all addressable.



THE MARKET IS NOT WAITING FOR BETTER SCIENCE — it is waiting for structural activation across patient identification, physician training, and referral pathway efficiency. Each barrier is addressable with known interventions.

The OAB Treatment Funnel Loses 99% of Patients Before Advanced Therapy — At Every Transition, for Preventable Reasons



Efficacy Is Equivalent Across All Four Therapies — Adoption Is Decided by Burden, Workflow, and Durability

Therapy	FDA Approval	Setting & Duration	Repeat Burden	Patient Burden	Responder Rate	5-Year Cost	2025 Market
BOTOX (AbbVie/Allergan)	2013	Office / ASC 6–12 month duration	Every 6–12 months 10–20 injections per decade	●●●○○ Medium	60–70% UTI risk: 22.7% Retention: 5–7%	\$22,500–\$37,500	~175,000 procedures ~ \$460M revenue Share: 32.6% Trend: ↗ Modest (+3.7% CAGR)
PTNM (Medtronic NuWave)	2010	Office (needle at ankle) Session-dependent	12 weekly + monthly maintenance forever 400+ visits/decade	●●●●● Very High	60–70% Cleanest safety profile	\$14,400–\$24,000	~15,000 procedures (~25% since 2020) ~ \$55M revenue Share: 3.9% Trend: ↘ Structural decline
SNM (InterStim / Axonics)	1997	OR / ASC (surgical implant) 5–15 year duration	Battery replacement ~10 years General anaesthesia required	●●○○○ Low (post-recovery)	71.8% (UUI) Key risk: OR dependence	\$30,000–\$50,000 (Highest)	~45,000 procedures ~ \$870M revenue ← LEADER Share: 61.7% Trend: ↗ Stable (+5.9% CAGR)
ITNM (eCoin / Revi / 2025)	2022 / 2025	Office / ASC (local anaesthesia) ~15-year battery life	Minimal — single implant Recovery: 1–2 days	●○○○○ Very Low (LOWEST)	~79.4% (OAB) (Amundsen et al., 2025)	\$15,000–\$25,000	~5,000 procedures (10× since 2020) ~ \$25M revenue Share: 1.8% Trend: ↗↗↗ 82% CAGR

ITNM IS THE ONLY THERAPY THAT AVOIDS THE WEAKEST CATEGORY ON ANY DIMENSION.
Its sole limitation is evidence immaturity — a function of age, not clinical design.
The competitive case rests on structural differentiation: durability WITHOUT surgery.

A 15× Referral Disparity Between Trained Specialists and Untrained Urologists Reveals Where the Market Must Be Unlocked

PHYSICIAN SEGMENTATION & REFERRAL ANALYTICS

Physician Type	Est. Count	Training Status	Referral Rate	Priority
FPMRS-Trained Specialists	~1,700	60–70% trained	~15%	★★★ IMMEDIATE
High-Volume General Urologists	~2,000	30–40% trained	5–8%	★★★ HIGH
General Community Urologists	~7,000	<5% trained	<1%	★★ MEDIUM
Cystoscopy-Capable OBGYNs	~3,000	<1% trained	<1%	★★ MEDIUM
Primary Care Providers	~250,000	N/A	Referral-only	★ LOW

~90% of total OAB procedural volume now performed in office-based settings. SNM remains ~90% facility-dependent — a structural vulnerability vs. ITNM.

PROCEDURE MIX BY SPECIALTY & ITNM GROWTH

- FPMRS: 14% of workforce → 20–35% of SNM / ~25% of ITNM volume | **Trained GU:** 41% → 50–60% of procedures | **Untrained GU:** 56% → 10–25% (severe underperformance)
- ITNM volume growth 2020→2025: +900% (500 → 5,000 procedures) — fastest-growing therapy in CMS Medicare dataset

15×

FPMRS referral rate vs.
untrained general urologists

Source: CMS PSPS / internship project data

7,000+

U.S. urologists untrained in any
advanced OAB therapy — yet
managing significant refractory
OAB patient volume

Current referral rate: <1%



A \$1.41B Advanced Therapy Market — 62% Concentrated in SNM, but the Growth Engine Has Already Shifted to a \$25M ITNM Base

BOTOX

Procedures: ~175,000 (new + repeat)

Revenue: \$460M

Market Share: 32.6%

Growth: +3.7% CAGR

SNM

Procedures: ~45,000

Revenue: \$870M

Market Share: 61.7% — REVENUE LEADER

Growth: +5.9% CAGR

PTNM

Procedures: ~35,000

Revenue: \$55M

Market Share: 3.9%

Growth: -3.0% CAGR (declining)

ITNM

STRATEGIC FOCUS

Procedures: ~5,000 (10× since 2020)

Revenue: \$25M

Market Share: 1.8% today

Growth: 82% CAGR → \$500M by 2030

\$1.41 BILLION

Total U.S. Advanced OAB Therapy Market (2025)

185,000 new patients annually

\$1.97B+

Untapped Opportunity

~365,000 refractory patients/year receive no advanced therapy — accessible without new devices or regulatory approvals

Revenue ≠ Volume

- SNM: 62% of revenue on just 24% of procedures
- Per-case revenue: SNM ~\$19,000 vs. Botox ~\$2,600 vs. ITNM ~\$5,000
- Revenue leadership ≠ growth leadership
- SNM's ceiling is its OR requirement

Global Context

- Global OAB treatment market: ~\$3.87–4.24B (2025)
- Projected: \$4.58–6.51B by 2030 (3.4–5.4% CAGR)
- U.S. = largest national share; highest per-capita advanced-therapy utilisation
- Advanced therapy = ~35% of total U.S. OAB market value

ITNM Inflection Trigger

- 2022: Valencia eCoin FDA approval — category created
 - 2023: BlueWind Revi wireless power design
 - 2024: AUA/SUFU guideline formal recognition
 - 2024: Boston Scientific acquires Axonics
 - 2025: Next-gen ITNM — 15-yr battery, office-based
- Four catalysts converge in 24 months

ITNM Rewrites the Category: From \$25M to \$500M in Five Years — Total Market Reaches \$2.26B by 2030

U.S. Advanced OAB Therapy Revenue Forecast, 2025–2030

Segment	2025	2026	2027	2028	2029	2030	CAGR
Botox	\$460M	\$483M	\$506M	\$529M	\$543M	\$552M	3.7%
SNM	\$870M	\$928M	\$986M	\$1,044M	\$1,102M	\$1,160M	5.9%
PTNM	\$55M	\$53M	\$52M	\$50M	\$49M	\$47M	−3.1%
ITNM ★	\$25M	\$40M	\$75M	\$150M	\$275M	\$500M	82.0%
TOTAL	\$1.41B	\$1.50B	\$1.62B	\$1.77B	\$1.97B	\$2.26B	9.9%

Worst-Case

- 2030 ITNM Procedures: 50,000
- ITNM CAGR: 58.5%
- Total Market (2030): **\$1.935B**
- Total Market CAGR: 6.5%

Base-Case

- 2030 ITNM Procedures: **100,000**
- ITNM CAGR: **82.0%**
- Total Market (2030): **\$2.259B**
- Total Market CAGR: **9.9%**
- CPT coverage reaches 65% by 2027

Best-Case

- 2030 ITNM Procedures: 150,000
- ITNM CAGR: 97.0%
- Total Market (2030): **\$2.590B**
- Total Market CAGR: 12.9%

Procedure Volume (Base-Case)
ITNM: 5K → 100K (82% CAGR)
Total: 185K → 310K (10.9% CAGR)

Demographics

- U.S. 65+ population: 58M (2025) → 70M+ (2030) = **+21%**
- OAB prevalence: >30% in adults over 65; >40% in women over 75
- Structural tailwind: +10–15% addressable pool expansion by 2030
- Independent of any therapy or reimbursement variable

Guideline Impact

- Refractory pool: **+10%** (anticholinergic dropout acceleration)
- Median time to advanced therapy: **−20 to −33%** (15+ → 10–12 months)
- ITNM annual procedures (2027 vs 2025): **+200%**
- Advanced therapy penetration: 34% → 40–45%

Reimbursement Lever

- Each 10-point coverage increase: **+15–20%** procedure volume growth
- Current ITNM coverage: ~40% (2025)
- Forecast: 65%+ (2027) | 80%+ (2030)
- CPT codes 0816T/0817T established 2025 — billing infrastructure is live

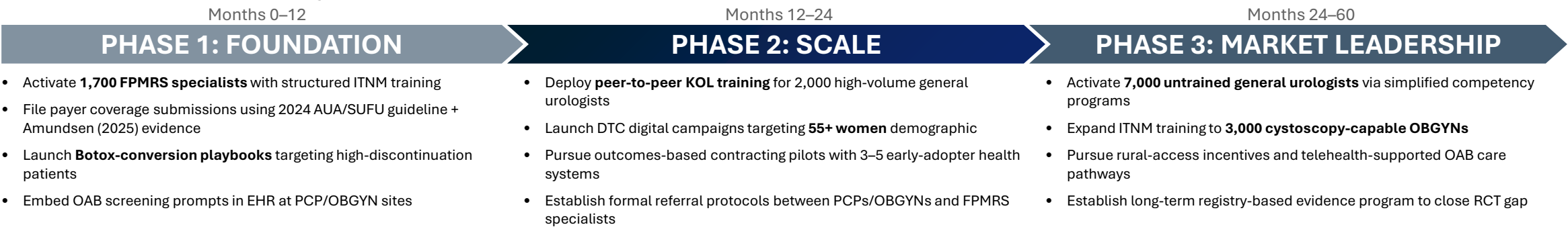
Restraining Forces Currently Outweigh Drivers Across Three of Five Dimensions — But Every Major Barrier Is Addressable

Dimension	Key Drivers (→ Adoption)	Net Force	Key Barriers (← Adoption)
 Patient	Ageing demographics (+21% 65+ by 2030); rising preference for minimally invasive care; digital health literacy growth	↓↓ Restraining	70–75% symptomatic adults never seek care; 'normal ageing' misconception (53%); provider never raised topic (55%); procedural anxiety
 Physician	FPMRS specialists refer at 15× rate; 2024 AUA/SUFU guideline legitimacy; KOL peer-to-peer networks; office-based procedure economics	↓↓ Restraining	7,000+ untrained urologists (<1% referral); referral inertia; minimal OBGYN/PCP awareness; no structured escalation protocols
 Healthcare System	90% office-based migration (structural tailwind); APP-driven coordination models; ASC/OBL growth	↔ Mixed	Urologist workforce shortage (especially rural); fragmented care pathways; 'endless first-line loop'; no EHR-embedded escalation triggers
 Reimbursement	CPT 0816T/0817T established (2025); 2024 guideline clinical justification; outcomes-based contracting potential; site-neutral payment	↔ Mixed	ITNM coverage ~40% (majority blocked); prior authorisation burden; coding complexity (two codes per device)
 Technology	15-year battery life; MRI conditionality; immediate activation; 3 competing vendors driving awareness; growing evidence base	↑ Driving	No head-to-head RCT for ITNM vs. SNM; competitive fragmentation slowing training; physician switching-cost hesitation

THREE HIGHEST-PRIORITY BARRIERS MUST BE ADDRESSED IN PARALLEL:
(1) Expand care-seeking — without more referred patients, trained physicians are idle | (2) Close the training gap — without trained physicians, coverage goes unclaimed | (3) Accelerate ITNM reimbursement — without coverage, trained physicians cannot approve the procedure
Each 10-point increase in ITNM coverage drives **+15–20%** procedure volume growth.

A Three-Phase Activation Roadmap to Capture the 18–24-Month Strategic Window Across Five Stakeholder Tracks

THREE-PHASE ACTIVATION SEQUENCE



FIVE-STAKEHOLDER PRIORITY ACTIONS & EXPECTED OUTCOMES

Device Manufacturers	Healthcare Providers	Payers	Policy-makers	Patient Advocacy
•3-phase physician activation (FPMRS → trained GU → community GU) •Botox-conversion playbooks •DTC digital campaigns •CPT-code reimbursement advocacy Outcome: ITNM captures early share; training creates durable incumbency	•Office-based OAB clinic models with APP-led navigation •Embed systematic OAB screening in EHR •Structured escalation pathways using 2024 guideline Outcome: Reduce refractory-to-device wait from 15+ months to <10 months	•Issue clear coverage policy for CPT 0816T/0817T •Explore outcomes-based contracting •Simplify prior authorisation aligned to AUA/SUFU Outcome: Each 10-point coverage expansion drives +15–20% procedure volume	•Align CMS coverage with 2024 guideline •Fund rural-access incentives •Integrate OAB screening into preventive care •Support GME expansion in FPMRS Outcome: Close geographic access disparities; expand addressable pool	•Sustained destigmatisation campaigns addressing "normal ageing" misconception •Activate PCP referral pathways •Digital patient-education on treatability Outcome: Shift care-seeking from ~28% toward 33–35% by 2030

STRATEGIC GOAL — 2030

Advance penetration from ~1% to 3% of the symptomatic OAB population. Base-case market value: \$2.26B. Each structural barrier addressed compounds into disproportionate procedure volume and patient-outcome gains. The science is proven. The window is open. The constraint is execution.

References

Selected Key Sources — Full bibliography available in dissertation (APA format)

American Urological Association (AUA) / SUFU. (2024). *Diagnosis and treatment of non-neurogenic overactive bladder (OAB) in adults: An AUA/SUFU guideline amendment*. Journal of Urology.

Amundsen, C. L., et al. (2025). Indirect comparison of sacral neuromodulation and implantable tibial neuromodulation for urgency urinary incontinence: A systematic review and meta-analysis. *Neurourology and Urodynamics*.

Chughtai, B., et al. (2024). Real-world persistence and subsequent therapy adoption among patients initiating botulinum toxin for overactive bladder: An Optum claims analysis (2009–2021). *Urology*.

Elbaset, M. A., et al. (2025). Sacral neuromodulation for idiopathic overactive bladder: A systematic review of safety and efficacy. *International Urogynecology Journal*.

Health Technology Wales. (2025). *Implantable tibial neuromodulation devices for urgency urinary incontinence and overactive bladder*. HTW Guidance Document.

Khavari, R., et al. (2024). Percutaneous tibial nerve stimulation for overactive bladder: Guideline status, compliance patterns, and clinical utility. *Current Urology Reports*.

King, A. B., et al. (2025). Trends in OAB prevalence and pharmacotherapy utilisation in women: NHANES and NAMCS analysis, 2017–2018. *Female Pelvic Medicine & Reconstructive Surgery*.

Lee, J., et al. (2025). Implantable peripheral nerve stimulation for overactive bladder: A comprehensive review of seven devices. *Neurourology and Urodynamics*.

Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). Free Press.

Sacco, E., et al. (2026). Intravesical botulinum toxin-A for idiopathic overactive bladder: Real-world efficacy and safety outcomes. *European Urology Focus*.

Sexton, C. C., et al. (2011). Persistence and adherence in the treatment of overactive bladder syndrome with anticholinergic therapy: A systematic review. *International Journal of Clinical Practice*.

Sørensen, K., et al. (2026). The adoption paradox in medical device innovation: Evidence requests versus clinical behaviour. *Journal of Medical Devices*.

Wada, N., et al. (2026). Comparative persistence of mirabegron versus vibegron for overactive bladder: Real-world single-centre cohort study. *International Journal of Urology*.

Wang, Y., et al. (2025). Trends in female overactive bladder prevalence across seven NHANES cycles, 2005–2020. *Urology*.

Zhang, L., et al. (2024). Secular trends in male overactive bladder prevalence: NHANES analysis 2005–2020. *Journal of Urology*.

Centers for Medicare & Medicaid Services (CMS). (2020–2025). *Physician/Supplier Procedure Summary (PSPS) Public Use File*. U.S. Department of Health & Human Services.

Centers for Medicare & Medicaid Services (CMS). (2020–2025). *Medicare Provider Utilization and Payment Data — Part D*. U.S. Department of Health & Human Services.

U.S. Census Bureau. (2025). *National Population Projections: Age and Sex Composition, 2025–2030*. U.S. Department of Commerce.

U.S. Food and Drug Administration (FDA). (2022, 2023, 2025). *Premarket Approval (PMA) Records — Implantable Tibial Neuromodulation Devices*.

Grand View Research. (2024). *Overactive Bladder Treatment Market Size, Share & Trends Analysis Report, 2024–2030*.

Future Market Insights. (2024). *OAB Treatment Market Forecast Report — Global and U.S. Segment, 2025–2030*.

Global Market Insights. (2025). *Neuromodulation Devices Market Report: Sacral and Tibial Neuromodulation Segment Analysis*.

Boston Scientific Corporation. (2024). *Annual Report and Investor Presentation — Axonics Acquisition and Pelvic Health Division*. SEC Filing.

Anticholinergic burden cohort study. (2024). Association between anticholinergic burden, healthcare cost, cognitive impairment, and fall-related fractures in OAB patients (n=428,142). *Pharmacoepidemiology and Drug Safety*.

Disparities in OAB treatment study. (2026). Socioeconomic disadvantage, race, and differential utilisation of anticholinergics, beta-3 agonists, and SNM in OAB (n=6,786). *Urology*.

Botox UTI meta-analysis. (2025). UTI incidence with onabotulinumtoxinA 100U versus placebo in idiopathic OAB: Pooled analysis (RR 2.53). *BJU International*.

Global physician survey. (2025). Physician preference for third-line OAB therapy: Botox (46.2%), SNM (29.9%), and PTNS. *International Continence Society*.

International Continence Society (ICS). (2002, updated 2023). *Standardisation of Terminology of Lower Urinary Tract Function*. ICS Report.

Full bibliography in APA format is available in the dissertation document. Data sources include CMS Medicare PSPS Public Use File, AUA/SUFU Clinical Guidelines (2024), PubMed-indexed peer-reviewed literature, FDA device records, company annual reports, and market research publications (2011–2026). ICD-10 codes N32.81, N39.41, N39.46 and CPT codes 52287, 64561, 64566, 64581, 64590, 0816T, 0817T anchor the utilisation analytics throughout this study.