

Percutaneous 60-Day PNS used to treat knee pain: Cross-sectional survey demonstrates durable relief in surgery-naïve patients seeking non-surgical pain management



N Shah,^{1,2} S Erosa,³ H Mao,⁴ C Varacallo,⁵ R Bashyal,^{1,2} D Lester,⁶ M Eckmann,⁷ JE Gilbert,⁸ A Wongsarnpigoon,⁸ JW Boggs⁸

¹Endeavor Health, ²University of Chicago, ³St. John's Riverside, ⁴Indiana University, ⁵Pen n Highlands Healthcare, ⁶Central Virginia VA Health System, ⁷University of Texas San Antonio, ⁸SPR

Objective

- Knee pain is prevalent, and refractory cases often require surgery to correct structural issues.
- While surgery can be effective some patients may not be surgical candidates or may prefer to delay surgery.
- Even after a successful surgery, a minority of patients (e.g., 15-20%) may experience postoperative pain [1].
- Percutaneous 60-Day Peripheral Nerve Stimulation (PNS) has demonstrated knee pain relief in an RCT and durable long-term pain relief lasting more than 4 years in several indications [2-4].

Study Goal: *Evaluate use of other interventions and durability of knee pain relief following Percutaneous 60-Day PNS treatment.*



Methods

- IRB-approved cross-sectional follow-up survey of patients who underwent 60-day PNS treatment of knee pain and:
 - were at least 6 months from the start of treatment
 - responded with ≥50% pain relief at the end of treatment (EOT)
 - had opted in at the time of treatment to provide information to the device manufacturer
- Patient-reported outcomes:
 - Patient-reported percent pain relief
 - Average and worst pain scores (0-10 numerical rating scale)
 - Patient global impression of change (PGIC) in quality of life, physical function, mood, and sleep.
 - Use or avoidance of other treatments and interventions (surgery, radiofrequency ablation [RFA], permanent neurostimulator implant).
- Continuous data: mean ± SD.

172 survey respondents reported use of Percutaneous 60-Day PNS with the goal of delaying or deferring knee surgery*

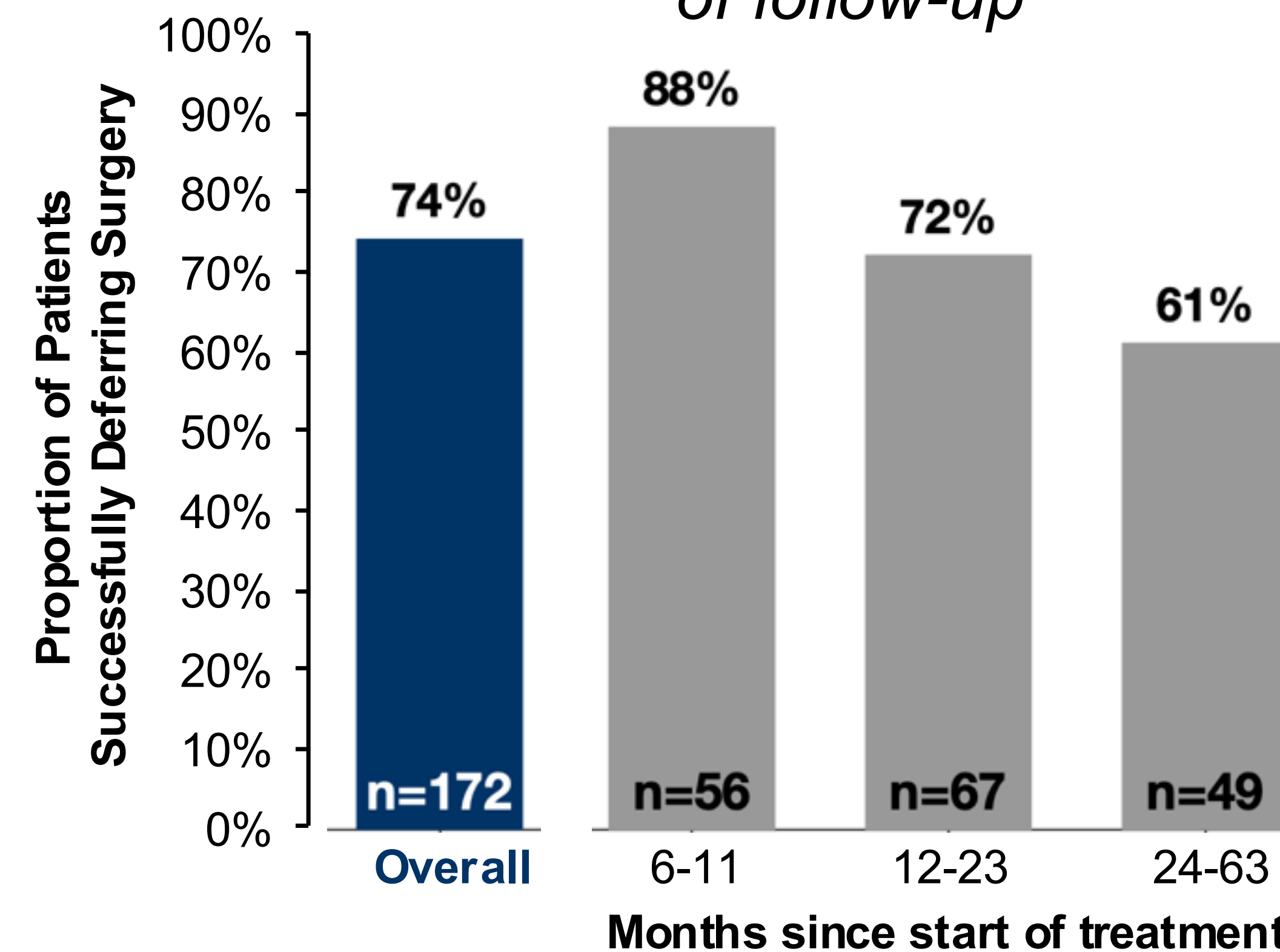
Demographics (n=172)	
Sex	75% F
Age, years	66 ± 14
Baseline Average Pain	5.9 ± 2.1
Baseline Worst Pain	8.7 ± 1.6
Months from Start of 60-Day PNS, n (%)	
6-11 Months	56 (33%)
12-23 Months	67 (39%)
24-63 Months	49 (28%)
Causes of Knee Pain, n (%) Patients selected all that apply.	
Osteoarthritis	131 (76%)
Injury/Trauma	55 (32%)
Nerve/Neuralgia	13 (8%)
Unsure/Unknown	11 (6%)
Number of leads, n (%)	
Single	80 (47%)
Dual	92 (53%)
Most Common PNS Nerve Targets, n (%)	
Saphenous, % (n)	95 (55%)
Femoral, % (n)	60 (35%)
Genicular, % (n)	22 (13%)
Sciatic, % (n)	19 (11%)

Safety: As a follow-up survey, safety outcomes were not directly assessed for this study

Results

Durable pain relief enabled deferral of knee surgery in a majority of non-surgical patients following 60-Day PNS

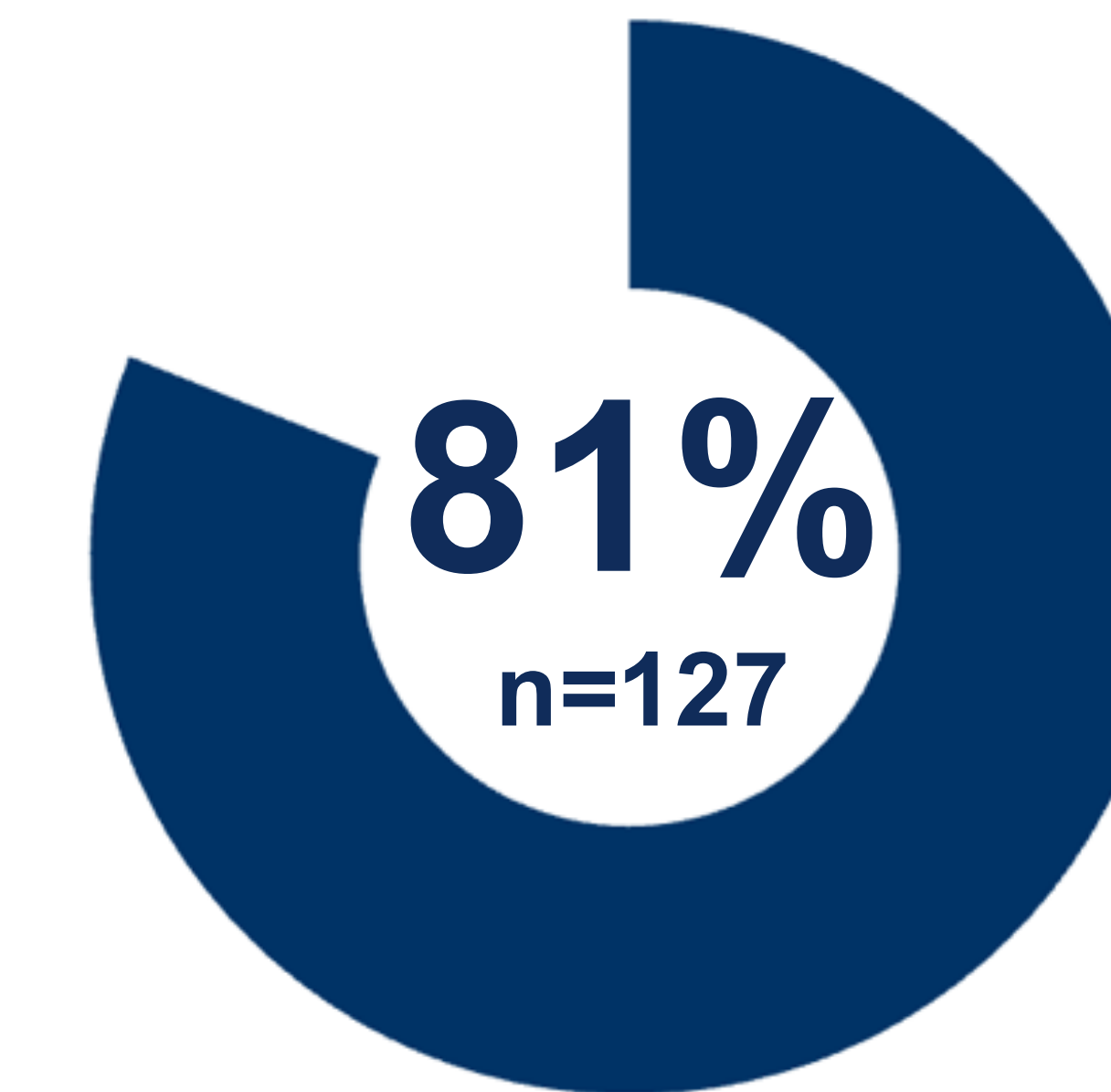
74% (n=127/172) reported no subsequent knee surgery at the time of follow-up



§ **Durable improvement:** Pain relief ≥50% and/or improvement in quality of life, physical function, mood, and/or sleep ≥1 on a 7-point (-3 to 3) PGIC scale.

Medications: Change in medication usage assessed among patients that reported any medication usage (n=116)

Among patients that deferred surgery: 81% (n=103/127) reported durable improvement at the time of follow-up §



Among patients that deferred surgery:

98%
Avoided a permanent neurostimulator implant

94%
Avoided radiofrequency ablation

51%
Stopped or reduced their medications#

***Want to see more?** Erosa et al., *Long-term efficacy of Percutaneous 60-Day Peripheral Nerve Stimulation out to five years: A cross-sectional follow-up survey*

Key Takeaways

Real-world findings support Percutaneous 60-Day PNS as a nonsurgical option that relieves pain, leading to improved function and quality of life by:

- Providing treatment for patients who are not surgical candidates
- Helping patients delay or defer surgery

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References: [1] U. S. Nguyen et al., *Ann Intern Med*, 2011 [2] Goree et al., *Neuromodulation*, 2024. [3] Vorenkamp et al. *Pain and Therapy* 2025. [4] Gilmore et al. *Pain and Therapy* 2025.