



60-day Peripheral Nerve Stimulation Used for Knee Pain Improves Outcomes Across Multiple Health-Related Domains: A Real-World Retrospective Review

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BACKGROUND

- Knee pain is estimated to affect around 25% of adults.¹
- 60-day peripheral nerve stimulation (PNS) has been shown to provide significant and sustain pain relief across clinical and real-world studies including in knee pain.¹⁻⁴
- Recent studies and guidelines have highlighted the importance of assessing multiple health-related domains to provide a more comprehensive assessment of patient response to pain treatments compared to pain relief alone.^{5,6}
- The present study evaluates improvement across multiple domains following 60-day PNS treatment used for knee pain in routine clinical practice in the United States.

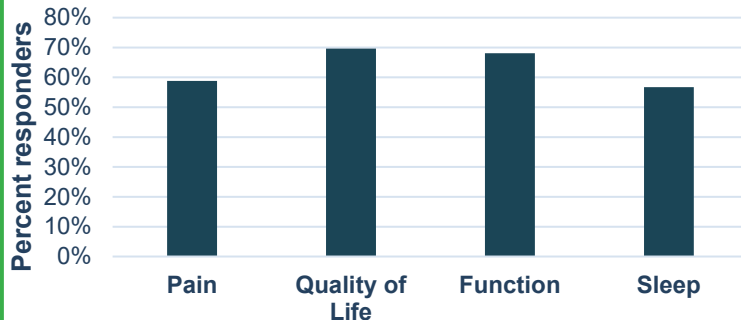
METHODS

- Anonymized data were reviewed retrospectively from a national real-world database.
- Patients were included if they previously received 60-day PNS for knee pain and had end of treatment (EOT) data in all four domains: percent pain relief, patient global impression of change (PGIC) in quality of life (QoL), PGIC in physical function, and PGIC in sleep.
- Responders were defined as patients reporting $\geq 50\%$ **pain relief** or clinically significant improvement (PGIC ≥ 1) in **QoL, function, or sleep**, respectively at EOT.

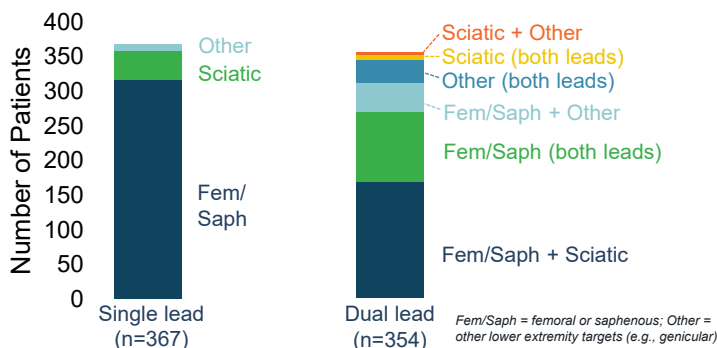


RESULTS & DISCUSSION

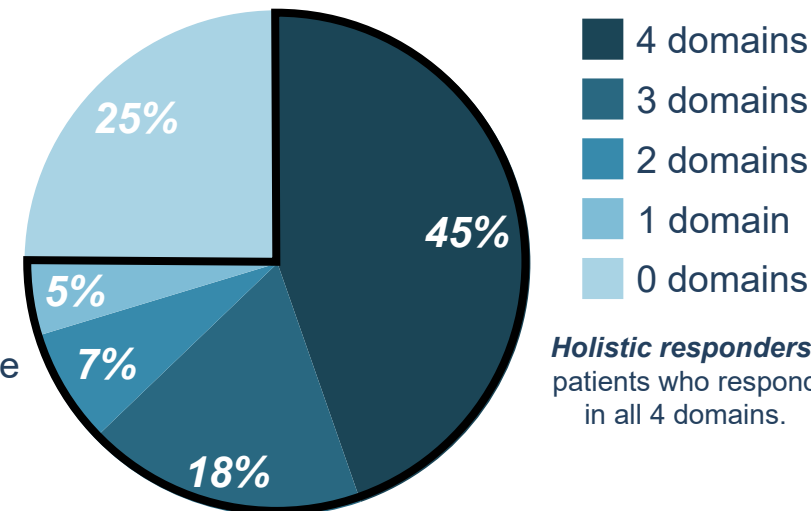
Majorities of patients responded in each individual domain



The **femoral**, **saphenous**, and **sciatic** nerves were the most common nerve targets, alone or in combination.



75% (544/721) of patients responded in at least one domain of health at the end of treatment.



Holistic responders: patients who respond in all 4 domains.

- The average age of patients was 65 ± 15 years.
- While safety was not directly analyzed here, published studies indicate the most common events are skin irritation due to adhesive bandages, pain or discomfort due to stimulation, and pain due to the lead placement procedure.

CONCLUSIONS

- This real-world retrospective cohort study found that 60-day PNS treatment produced significant improvements in multiple health-related domains in a majority of patients with knee pain.
- Further, many patients responded across all domains, demonstrating 60-day PNS treatment for pain may contribute to improvements in quality of life, physical function, and sleep.

REFERENCES

1. Hasoon et al., 2021; 2. Ilfeld et al., 2019; 3. Chitneni et al., 2021; 4. Pingree et al., 2022; 5. Levy et al., 2023; 6. Pilitsis et al., 2021

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