

# Retrospective Claims Analysis of Decreased Healthcare Visits with Lidocaine Topical System 1.8% Compared to Lidocaine 5% Patch

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## BACKGROUND

Lidocaine topical system 1.8% (LTS [ZTlido]) and lidocaine 5% patch (LP [Lidoderm]) are bioequivalent prescription lidocaine topical patches that are identical in size and deliver the same amount of lidocaine through the skin, but lidocaine bioavailability from LTS is more than 10X that of LP.

The novel composition and design of LTS has demonstrated significantly better adherence performance than branded and generic LP in comparative clinical studies (LTS 89%, generic LP 27%).

As a result, lidocaine patches that adhere poorly or detach may result in suboptimal pain management and potentially increase healthcare resource utilization.

## PURPOSE

Use US administrative claims data to evaluate the impact of LTS versus conventional LP on healthcare resource utilization, including ER visits, office/clinic visits, outpatient visits, and pain procedures.

## METHODS

**Table 1. Cohort Definition and Analytical Design**

<b>Data Source</b>	Symphony Claims Data with coverage across multiple payment types – commercial, medicare etc.
<b>Study Time Period</b>	October 1, 2018 – February 28, 2022
<b>Index Event</b>	First prescription fill for LTS or LP
<b>Inclusion Criteria</b>	<ul style="list-style-type: none"> <li>- 6 months of pre and post-index continuous medical and pharmacy coverage</li> <li>- Diagnosis in the pre-index period with post-herpetic neuralgia (PHN), diabetic peripheral neuropathy (DPN) or lower back pain (LBP)</li> <li>- Patient must be at least 18 years of age at index</li> </ul>
<b>Exclusion Criteria</b>	<ul style="list-style-type: none"> <li>- Patients who had index therapy within the 6 months before index date</li> <li>- Patients with depression or fibromyalgia diagnosis in pre-index period</li> </ul>
<b>Cohorts (index therapy)</b>	LTS LP

**Table 2. Pain Procedures for Pre- vs. Post-Index Comparisons in LTS and LP Cohorts**

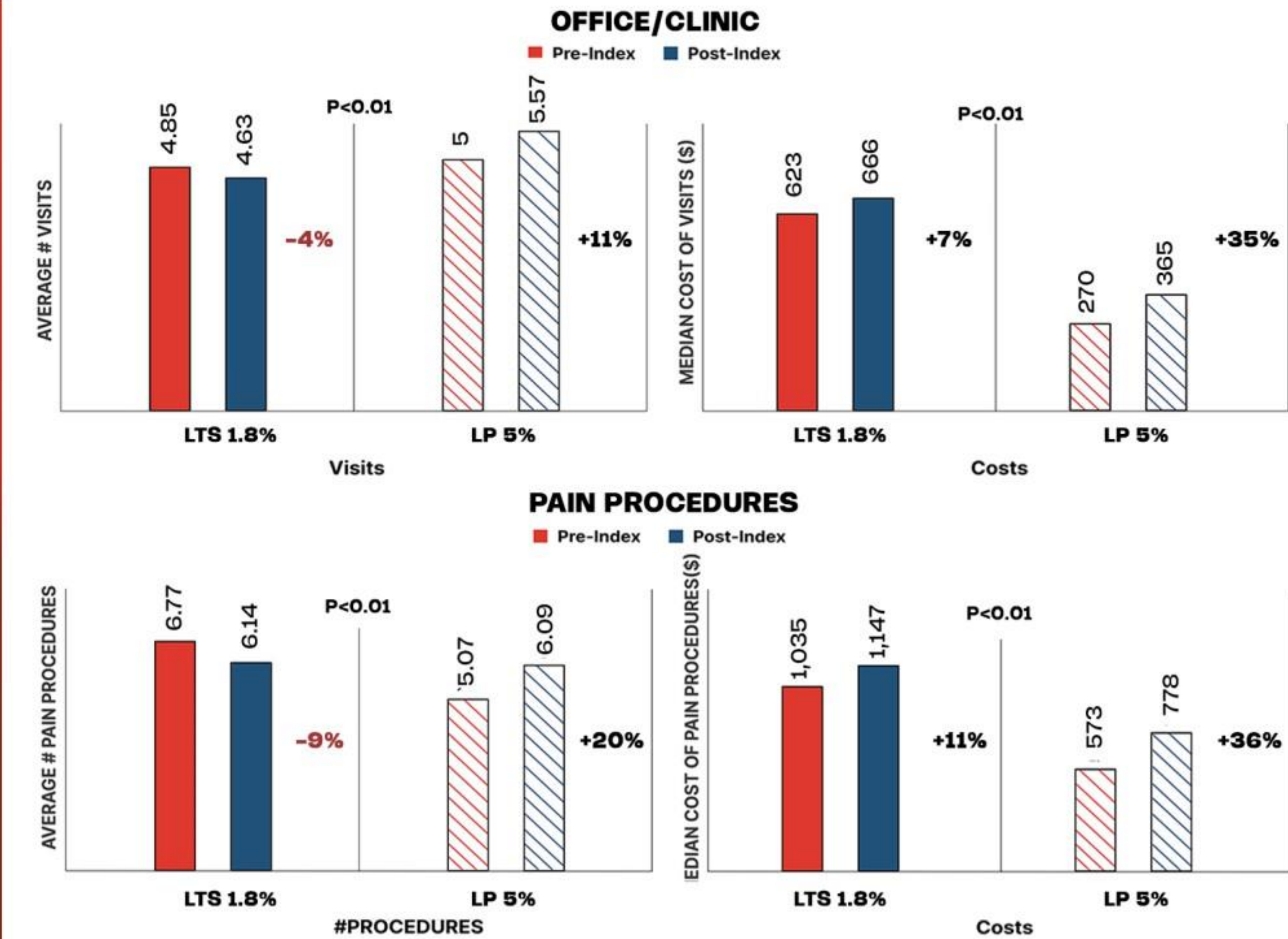
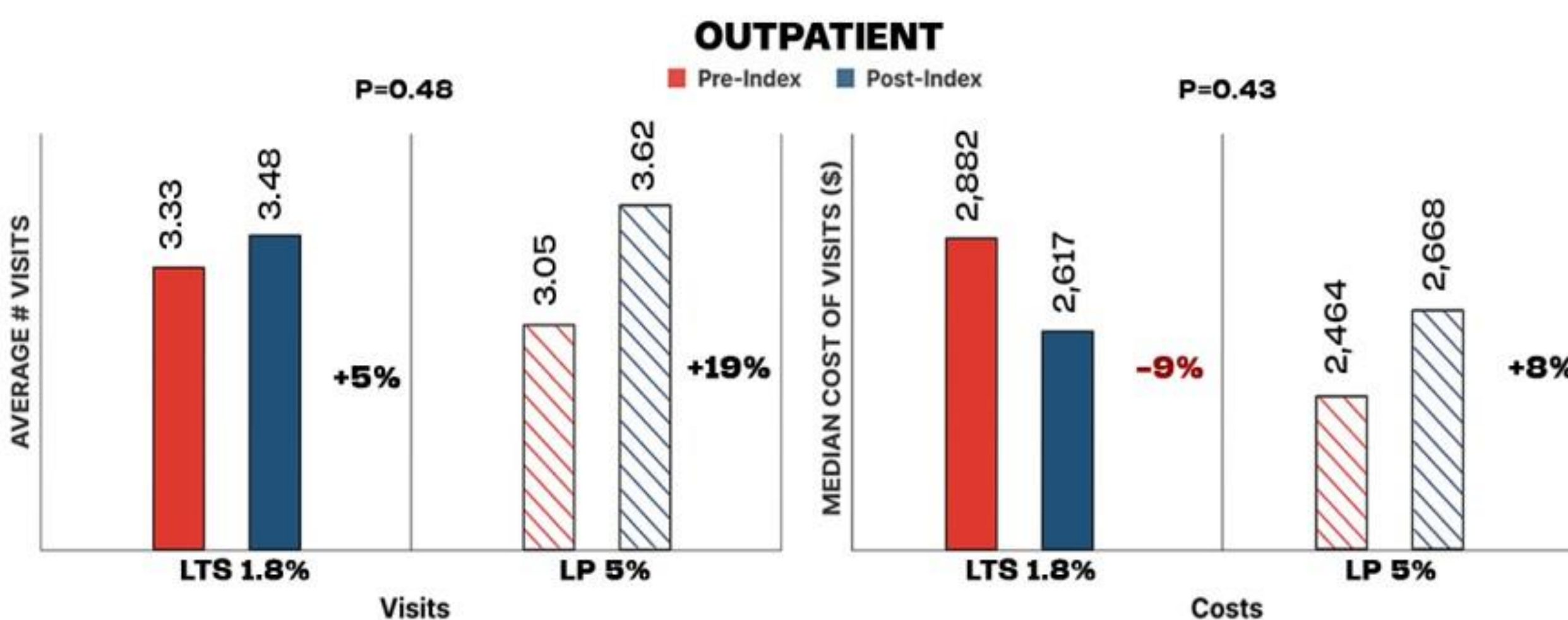
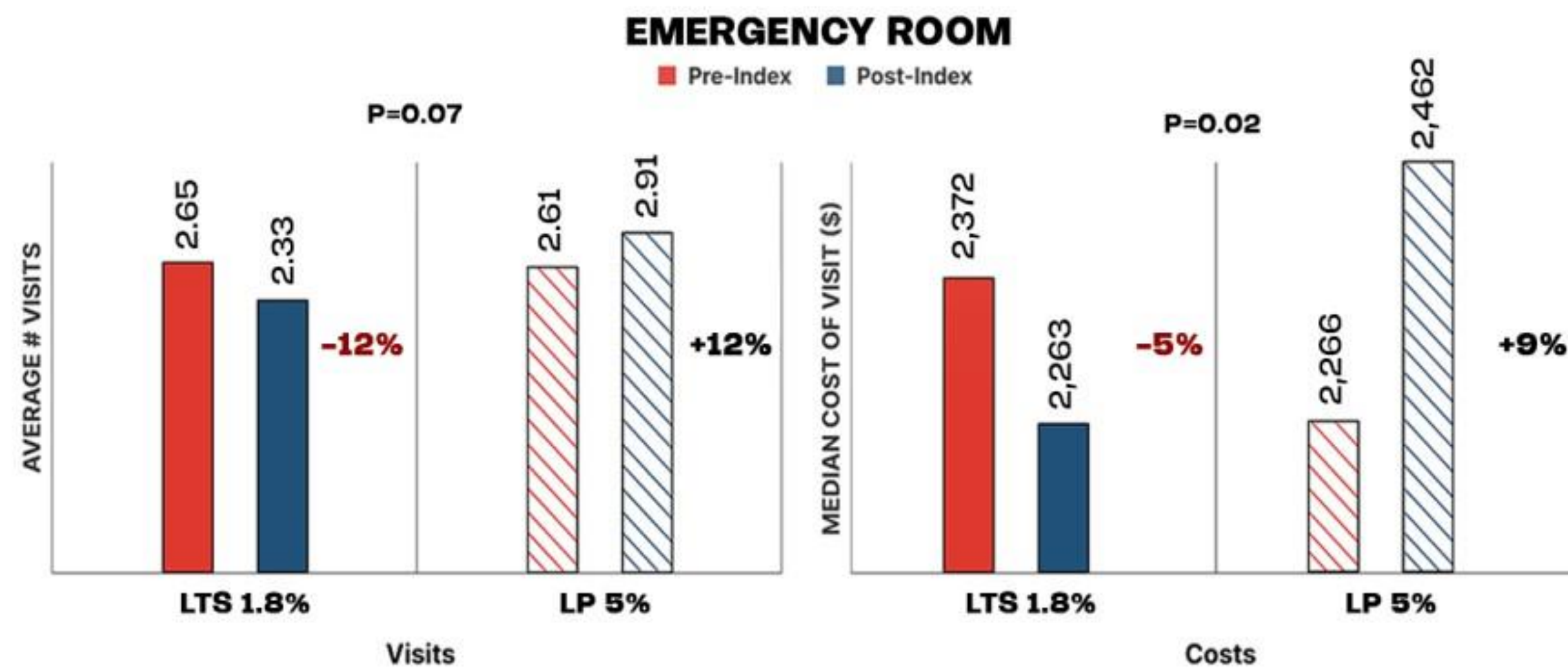
Physical Therapy, Neurolysis, Neuroplasty, Neurostimulator, Acupuncture, TENS Unit, Excision, Ablation, Decompression, Biofeedback

- Healthcare utilization included ER visits, office/clinic visits, outpatient visits, and pain proc.
- Change in pre- vs. post-index healthcare utilization was compared for the LTS and LP cohorts

## RESULTS

**Table 3. Patient Waterfall and Cohort Size**

PATIENTS	LTS	LP
With drugs of interest with first fill in the pharmacy claims – index event and age >= 18 years	12,526	863,766
Continuous pre- and post-index medical plus pharmacy coverage	3,494	273,391
Diagnosis of PHN, DPN, or LBP in the pre-index period	955	55,106



## CONCLUSIONS

LTS is associated with reductions in ER visits (-12%), ER costs (-5%), Outpatient costs (-9%), Office/Clinic visits (-4%), and Number of Pain Procedures (-9%). In contrast, LP is associated with increase in the utilization of these resources (+12%, +9%, +8%, +11%, and +30% respectively).

LTS is associated with a small increase in Outpatient visits (+5%), Office/Clinic costs (+7%) and Pain Procedure costs (+11%). LP was associated with larger increases in these settings (+19%, 35%, and +36%, respectively).

Differences in cross-cohort comparisons (LTS vs LP) were significant for visits and costs for Office/Clinic, Pain Procedures and ER costs. Differences were not significant for Outpatient visits/costs & ER visits.

These results imply that treatment with LTS may result in reductions in healthcare resource utilization (HCRU) costs when comparing 6 months pre-index to 6 months post-index. By contrast, treatment with LP may result in increase of HCRU costs.

These results are similar to previously reported results from another retrospective claims analysis. (Nalamachu S, et al. PainWeek 2023. Las Vegas, NV.)