

Background and Aims

Interest in Labor Epidural Anesthesia: A 10-Year Google Trends Analysis

Tarick E. Ahmad BS* · Tejash P. Sikka BS MSBA · Ammaar Mohammad BS · Dr. Margaret O'Donoghue MD · Dr. Jacqueline Donovan MD

- *What Do Patients Search Before Choosing Epidural Analgesia?*
- **The Clinical Gap** - Epidural anesthesia is the most used labor analgesic in the United States - yet patient knowledge, concerns, and information-seeking behaviors remain largely understudied.
- **Hypothesis:** Using 10 years of Google Trends data (2015-2025), we hypothesized that patient search interest in epidural safety, adverse effects, and logistics has risen, particularly following COVID-19, reflecting both evolving patient concerns and shifting health education channels.



Methods



Data Source

Retrospective Google Trends query spanning **May 2015 - May 2025**

Query Extraction

Top **50 labor-epidural questions** extracted; Relative Search Volume (RSV) recorded for each term

Statistical Analysis

One-way **ANOVA** used to compare mean RSV across terms ($\alpha = 0.05$)

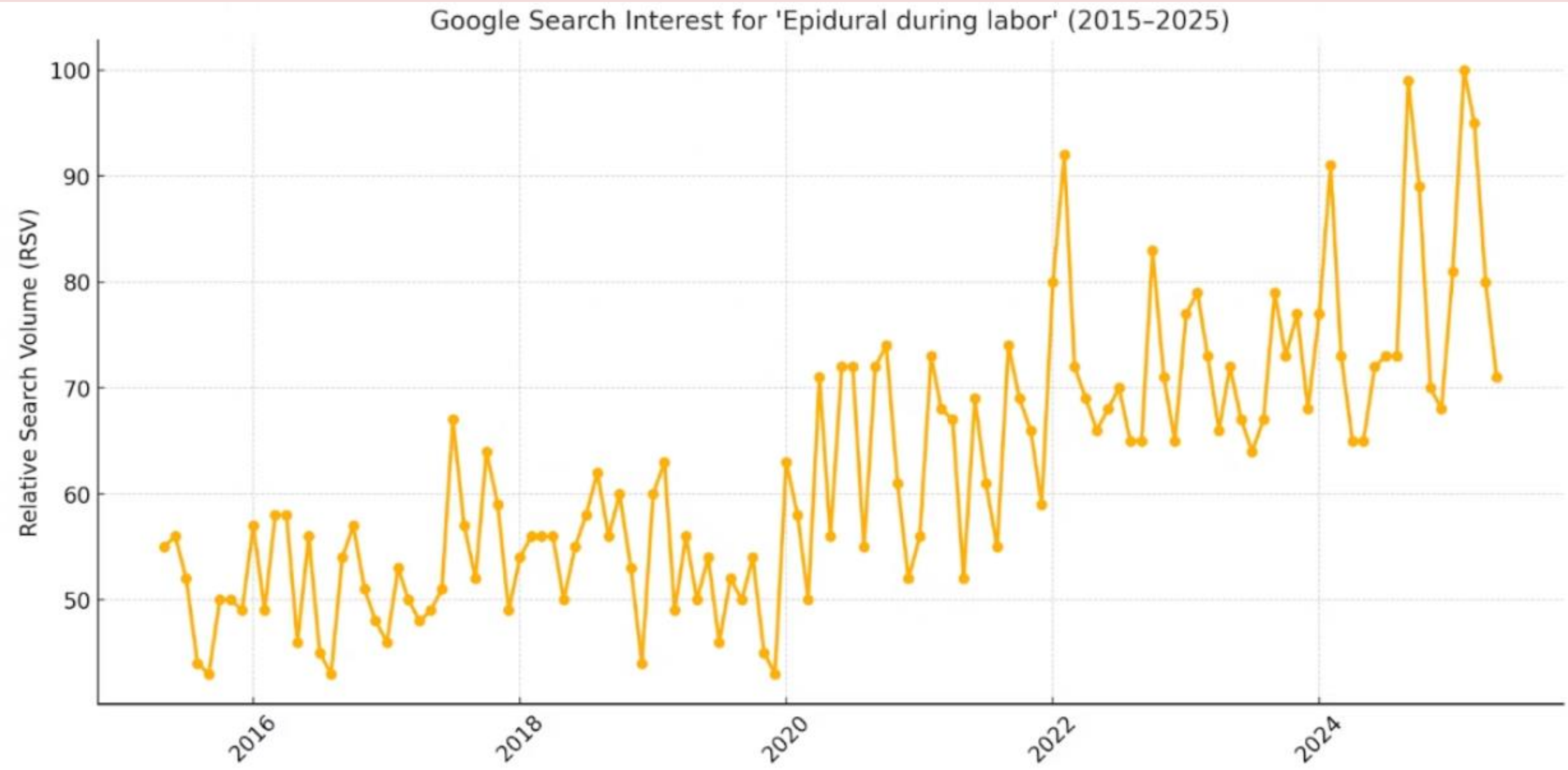
Quality Scoring

Top 10 terms: first 5 Google results scored using **Global Quality Score (GQS, 1–5)**



Results

Rising Search Interest & Mixed Information Quality



Search Term	Mean RSV	Mean GQS
epidural side effects	78.29	3.6
is epidural safe for baby	75.84	3.2
epidural not working	74.6	2.8
epidural during labor	62.34	4.2
can epidural cause back pain	60.97	2.8
how much does an epidural cost	57.73	1.8
how long does epidural last	56.82	4.8
when to ask for epidural	51.61	2.6
is epidural safe	51.2	3.8
epidural vs natural birth	47.36	3.8

Table 1. Top Epidural-Related Search Terms and Information Quality

50→89

RSV Increase

Mean RSV for "epidural during labor" rose from 50 to 89 over the decade

#1

Top Search Term

"Epidural side effects" & "is epidural safe safe for baby" ranked highest in search search interest

★★★★☆

Duration & Safety

Duration and safety queries returned returned high-quality results (GQS 4–5) 4–5)

★★☆☆☆

Cost Queries

Cost queries had poor-quality results (GQS ≤2)

Patient-driven searches for labor epidural anesthesia have increased significantly over the past decade, with a pronounced focus on **safety and adverse effects**.

While some high-quality online resources exist for safety and duration queries, queries, **cost-related content remains consistently poor** in quality which is an actionable gap for clinician education efforts.

A statewide survey of OB departments' **patient-education practices post-pandemic** is planned to assess how institutions are addressing evolving patient information needs.

