

# LIGNOCAINE INFUSIONS FOR CHRONIC PAIN: A QUALITY OF LIFE AND OUTCOMES EVALUATION

Authors: M.A. Kelshiker, I. Khan, A. Raggett, J. Solola, A. Gupta, J. Reid, H. Ahmed, K. Mehdi, W. Mir, H. Nagi, M. El-Rakshy.

Sandwell and West Birmingham Hospitals NHS Trust

## Background:

Chronic pain affects an estimated 28 million people in the United Kingdom<sup>2</sup> and accounts for approximately 50% of General Practitioner consultations<sup>1</sup>. Of these individuals, 8 million report pain that is moderately to severely disabling<sup>2</sup>. Many patients with persistent pain are routinely prescribed opioids<sup>3</sup>.

Sandwell and West Birmingham Hospitals NHS Trust is currently the only trust in the region offering routine intravenous lignocaine infusions for fibromyalgia. Administered over 1–2 hours in a dedicated infusion suite, lignocaine has been shown to improve pain control in 41% of patients<sup>5</sup>, with minimal side effects and a concurrent reduction in opioid requirements<sup>4</sup>.

## Aims:

1. Evaluate improvement in patients' quality of life.
2. Assess impact on opioid use.
3. Identify barriers to reducing opioid use.

## Methodology:

A retrospective audit of 106 patients receiving intravenous lignocaine infusions was undertaken. Patients with fibromyalgia whom had previously received infusions and underwent repeat infusions within the last 6 months.

Data was collected using a survey incorporating elements of the WHO Quality of Life (WHOQOL) tool. Surveys were completed either by patients during their infusion appointments using a QR code or by telephone interview.

Patients self-reported outcomes across five domains: mobility, sleep, general activity, energy levels and hobbies. Opioid use before and after infusions was also recorded.

Participants: 106 patients with fibromyalgia who had previously received lignocaine infusions and underwent repeat treatment in the past six months.

Quality of life domains assessed:

- Mobility
- Sleep
- General activity
- Hobbies
- Energy levels

## Results

- 93% of patients reported improved quality of life.
- 45% noted a reduction in opioid use post-infusion.
- 46% experienced symptom relief lasting 2–4 months.
- Subjective improvements in pain intensity and daily functioning were commonly reported.
- Sentiment analysis highlighted key barriers: limited access to infusions and insufficient treatment frequency.

## Conclusion

Lignocaine infusions offer significant benefits for patients with chronic fibromyalgia-related pain, including improved quality of life and reduced reliance on opioids. These findings support the expansion of this service to other areas.

## Limitations + Future Direction:

- Sample size limited to 106 patients
- Ongoing data collection via digital platforms
- Engagement with regional pain centres underway to explore wider implementation

Have your opioid requirements changed since starting your infusions?

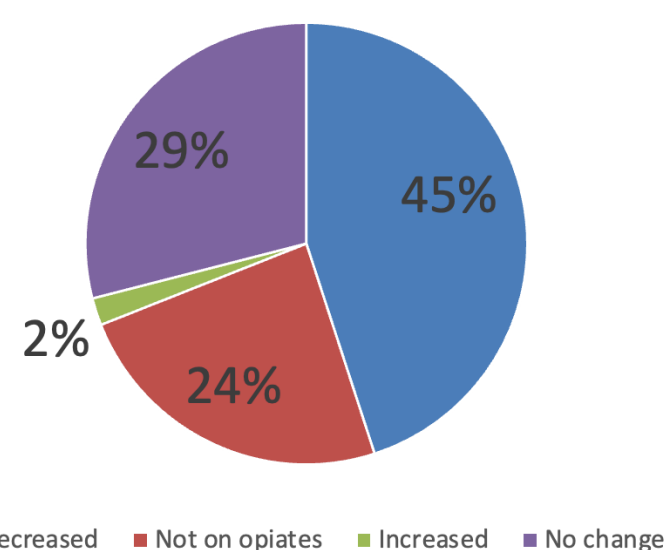
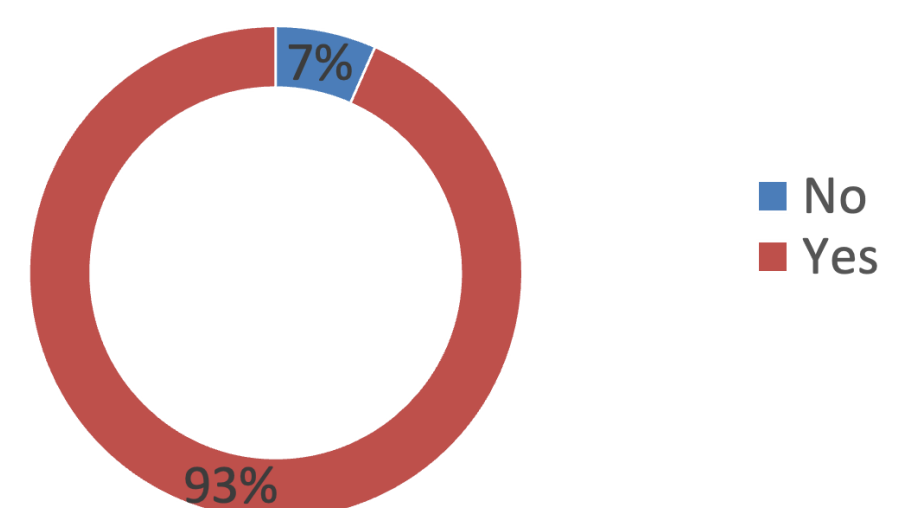


Figure 1: Pie chart showing how patient's opioid use had changed after their infusion.

Overall have your infusions improved your quality of life?

Figure 2: Pie chart showing how patient's quality of life had changed after infusions.



## References

- [1] Tully J, Jung JW, Patel A, et al. Utilization of intravenous lidocaine infusion for the treatment of refractory chronic pain. *Anesth Pain Med.* 2021;10(6):e112290. doi:10.5812/aapm.112290 [2] Fayaz A, Croft P, Langford RM, et al. Prevalence of chronic pain in the UK: a systematic review and meta-analysis. *BMJ Open.* 2016;6(6):e010364. doi:10.1136/bmjopen-2015-010364