Medical Policy

Lidocaine Injections for Chronic Pain

MEDICAL POLICY NUMBER: 428

Effective Date: 2/1/2026

Last Review Date: 1/2026

Next Annual Review: 1/2027

INSTRUCTIONS FOR USE: Company Medical Policies serve as guidance for the administration of plan benefits. Medical policies do not constitute medical advice nor a guarantee of coverage. Company Medical Policies are reviewed annually and are based upon published, peer-reviewed scientific evidence and evidence-based clinical practice guidelines that are available as of the last policy update. The Company reserves the right to determine the application of medical policies and make revisions to medical policies at any time. The scope and availability of all plan benefits are determined in accordance with the applicable coverage agreement. Any conflict or variance between the terms of the coverage agreement and Company Medical Policy will be resolved in favor of the coverage agreement. Coverage decisions are made on the basis of individualized determinations of medical necessity and the experimental or investigational character of the treatment in the individual case. In cases where medical necessity is not established by policy for specific treatment modalities, evidence not previously considered regarding the efficacy of the modality that is presented shall be given consideration to determine if the policy represents current standards of care.

SCOPE: Providence Health Plan, Providence Health Assurance and Providence Plan Partners as applicable (referred to individually as “Company” and collectively as “Companies”).

PLAN PRODUCT AND BENEFIT APPLICATION

☒ **Commercial** ☐ **Medicaid/OHP*** ☐ **Medicare****

*Medicaid/OHP Members

Oregon: Services requested for Oregon Health Plan (OHP) members follow the OHP Prioritized List and Oregon Administrative Rules (OARs) as the primary resource for coverage determinations. Medical policy criteria below may be applied when there are no criteria available in the OARs and the OHP Prioritized List.

**Medicare Members

This *Company* policy may be applied to Medicare Plan members only when directed by a separate *Medicare* policy. Note that investigational services are considered **"not medically necessary"** for Medicare members.

COVERAGE CRITERIA

I. Intravenous infusion of lidocaine for the treatment of chronic pain, including but not limited to chronic neuropathic pain, headache, migraine and fibromyalgia is considered **not medically necessary.**

Link to Evidence Summary

POLICY CROSS REFERENCES

- Definition of Investigational, MP5

The full Company portfolio of current Medical Policies is available online and can be accessed here.

POLICY GUIDELINES

DEFINITIONS

Lidocaine

Lidocaine is a pharmacological agent that inhibits neural depolarization by acting on voltage-dependent sodium channels. It is extensively employed as a local anesthetic and is also administered systemically for the treatment of arrhythmias. The common adverse effects associated with lidocaine are generally

mild to moderate, including general fatigue, somnolence, dizziness, headache, periorbital and extremity numbness and tingling, nausea, vomiting, tremors, and variations in blood pressure and pulse.

Lidocaine injections have been proposed for the management of chronic pain conditions. These injections, administered either locally at the site of pain or intravenously for systemic relief, are frequently utilized for neuropathic pain, musculoskeletal pain, and Complex Regional Pain Syndrome (CRPS).

REGULATORY STATUS

U.S. FOOD AND DRUG ADMINISTRATION (FDA)

Approval or clearance by the Food and Drug Administration (FDA) does not in itself establish medical necessity or serve as a basis for coverage. Therefore, this section is provided for informational purposes only.

Intravenous (IV) lidocaine is approved by the U.S. Food and Drug Administration (FDA) for systemic use in the acute treatment of arrhythmias and for local anesthesia. However, using IV lidocaine for the treatment of chronic pain or psychiatric disorders is considered an off-label use.

CLINICAL EVIDENCE AND LITERATURE REVIEW

EVIDENCE REVIEW

A review of the ECRI, Hayes, Cochrane, and PubMed databases was conducted regarding the use of intravenous lidocaine infusions for the treatment of chronic pain indications. Below is a summary of the available evidence identified through January 2026.

Systematic Reviews

- In 2023, Dwivedi and colleagues conducted a comprehensive review and analysis of nine clinical trials that compared sphenopalatine ganglion (SPG) blocks to other treatments for post-dural puncture headache (PDPH). [1] These trials involved a total of 381 participants and examined the effectiveness of SPG blocks using different concentrations of lidocaine (ranging from 2% to 10%), with some studies also combining lidocaine with other medications like ropivacaine, dexamethasone, or epinephrine. The main goal was to evaluate pain relief at various time points. They found that SPG blocks provided significant pain relief compared to other treatments at 30 minutes, 1 hour, and 4 hours after treatment, but not at 2 hours, 6 hours, 8 hours, 12 hours, or 24 hours. The need for additional treatments was similar between the groups. The review had some limitations, including the different strengths and combinations of anesthetics used, the fact that most studies were not blinded, and the relatively small number of participants in each study.

- In 2021, Hayes published a review of systematic reviews evaluating the safety and efficacy of intravenous lidocaine infusion for the treatment of neuropathic pain.[2] Hayes ultimately awarded

a “C” rating (potential but unproven benefit). Authors wrote that evidence is insufficient to establish specific patient selection criteria for the use of intravenous lidocaine for the first-line treatment of neuropathic pain, although it may provide short-term benefits to patients with long-standing neuropathic pain. In the reviewed studies, a benefit of intravenous lidocaine was observed in patients with neuropathic pain arising from spinal cord injury, trigeminal neuralgia, complex regional pain syndrome, and peripheral diabetic neuropathy. Studies of patients with neuropathic pain due to peripheral nerve injury or failed back surgery syndrome did not report treatment benefit. Additional research regarding patient factors that predict response to treatment were determined to be necessary. Lidocaine hydrochloride injection is contraindicated in patients with known history of hypersensitivity to local anesthetics of the amide type. While results are consistent that intravenous lidocaine reduces neuropathic pain over the short term in many patients, the overall quality of the body of evidence was rated moderate due to limitations of the individual studies, and due to the small numbers of patients included in each study, which suggests imprecision. Authors concluded that intravenous lidocaine infusions may serve to reduce pain intensity for patients with neuropathic pain, particularly pain associated with spinal cord injury, trigeminal neuralgia, complex regional pain syndrome, and peripheral diabetic neuropathy. However, some evidence indicates it may not yield similar benefits for patients suffering with neuropathic pain due to peripheral nerve injury or failed back surgery syndrome.

- In 2016, Xu and colleagues conducted a comprehensive review of the literature on intravenous (IV) therapies for Complex Regional Pain Syndrome (CRPS).[3] Authors noted that CRPS remains a challenging condition to manage and that multidisciplinary approaches are often recommended. Compared to other treatments like spinal cord stimulation and intrathecal targeted therapy, IV treatments are less invasive and generally less costly. Their literature search, which included databases such as PubMed, Embase, Scopus, and the Cochrane databases, identified 299 articles. After a rigorous selection process, 63 articles were deemed relevant and were analyzed in detail. The authors found evidence supporting the use of IV therapies, including bisphosphonates, immunoglobulin, ketamine, and lidocaine, as potentially valuable interventions for selected patients with CRPS. Authors concluded that there is a significant need for high-quality studies to further evaluate the safety, efficacy, and cost-effectiveness of these IV therapies for CRPS. While the existing evidence suggests that lidocaine and other IV treatments may offer some benefits, the authors stressed the importance of conducting more rigorous research to confirm these findings and to guide clinical practice effectively.

- In 2013, O’Connell and colleagues conducted a review to evaluate the effectiveness of intravenous regional anesthesia for treating Complex Regional Pain Syndrome (CRPS).[4] Several studies included treatment with lidocaine. The combined results of these studies showed a slight improvement in pain relief shortly after treatment, but the results were not significant enough to be considered conclusive. The review concluded that there is limited evidence to support using this specific type of anesthesia as the best treatment for CRPS. The small sample sizes of the studies made it difficult to draw any firm conclusions about its effectiveness. Authors emphasized the need for larger and more comprehensive studies to better understand the value of this treatment for CRPS.

Randomized Controlled Trials

- In 2018, Kim and colleagues conducted a randomized, double-blind, placebo-controlled trial involving 43 patients with postherpetic neuralgia (PHN) or Complex Regional Pain Syndrome (CRPS).[5] Participants received either lidocaine or a placebo (saline) through four weekly infusions. The study found no significant difference in pain reduction between the two groups during the first two weeks. However, after the third and fourth weeks, the lidocaine group showed a significantly greater reduction in pain compared to the placebo group. This significant pain reduction in the lidocaine group was only observed immediately after the final infusion, and it did not persist at follow-up assessments one and four weeks later, indicating a temporary effect.

- In 2018, Liu and colleagues randomized 189 patients with PHN to receive a single 1.5-hour infusion of lidocaine along with midazolam and granisetron.[6] The control group received saline with midazolam and granisetron. Both groups also took pregabalin and oxycodone as needed. While both groups experienced a reduction in pain scores, there was no significant difference between the lidocaine and placebo groups. However, the lidocaine group showed a greater improvement in their 36-item Short Form Health Survey scores, peaking at one week, and a greater reduction in the use of analgesics. Specifically, 26.6% of patients in the lidocaine group decreased or stopped using analgesics, compared to only 2.2% in the control group. Side effects were mild and similar in both groups. The study's main limitation was the short duration of the lidocaine infusion.

CLINICAL PRACTICE GUIDELINES

No clinical practice guidelines addressing the use of lidocaine infusions for the treatment of any chronic pain condition were identified.

EVIDENCE SUMMARY

Evidence is insufficient to support the use of lidocaine injections for chronic pain. Systematic reviews have highlighted that lidocaine may provide short-term pain relief for conditions such as post-dural puncture headache and Complex Regional Pain Syndrome (CRPS), although these findings are limited by studies' small sample sizes and methodological differences. Some reviews have suggested potential benefits of intravenous lidocaine for managing CRPS, however, these studies also emphasize the need for high-quality research to validate these benefits and confirm the safety and clinical utility of the treatment. Randomized controlled trials have reported mixed results and also suffer from methodological limitations. More large trials with long-term follow-up are needed to definitively prove the safety and efficacy of lidocaine injections relative to current gold-standard treatments.

HEALTH EQUITY CONSIDERATIONS

The Centers for Disease Control and Prevention (CDC) defines health equity as the state in which everyone has a fair and just opportunity to attain their highest level of health. Achieving health equity requires addressing health disparities and social determinants of health. A health disparity is the occurrence of diseases at greater levels among certain population groups more than among others.

Health disparities are linked to social determinants of health which are non-medical factors that influence health outcomes such as the conditions in which people are born, grow, work, live, age, and the wider set of forces and systems shaping the conditions of daily life. Social determinants of health include unequal access to health care, lack of education, poverty, stigma, and racism.
The U.S. Department of Health and Human Services Office of Minority Health calls out unique areas where health disparities are noted based on race and ethnicity. Providence Health Plan (PHP) regularly reviews these areas of opportunity to see if any changes can be made to our medical or pharmacy policies to support our members obtaining their highest level of health. Upon review, PHP creates a Coverage Recommendation (CORE) form detailing which groups are impacted by the disparity, the research surrounding the disparity, and recommendations from professional organizations. PHP Health Equity COREs are updated regularly and can be found online here.

BILLING GUIDELINES AND CODING

Intravenous lidocaine infusions may be considered medically necessary unless billed with any of the diagnosis codes listed in the "Billing Guideline Appendix."

CODES*		
CPT	96365	Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); initial, up to 1 hour
HCPCS	J2003	Injection, lidocaine hydrochloride, 1 mg

***Coding Notes:**

- The above code list is provided as a courtesy and may not be all-inclusive. Inclusion or omission of a code from this policy neither implies nor guarantees reimbursement or coverage. Some codes may not require routine review for medical necessity, but they are subject to provider contracts, as well as member benefits, eligibility and potential utilization audit.
- All unlisted codes are reviewed for medical necessity, correct coding, and pricing at the claim level. If an unlisted code is submitted for non-covered services addressed in this policy then it will be **denied as not covered**. If an unlisted code is submitted for potentially covered services addressed in this policy, to avoid post-service denial, **prior authorization is recommended**.
- **See the non-covered and prior authorization lists on the Company Medical Policy, Reimbursement Policy, Pharmacy Policy and Provider Information website for additional information.**
- HCPCS/CPT code(s) may be subject to National Correct Coding Initiative (NCCI) procedure-to-procedure (PTP) bundling edits and daily maximum edits known as "medically unlikely edits" (MUEs) published by the Centers for Medicare and Medicaid Services (CMS). This policy does not take precedence over NCCI edits or MUEs. Please refer to the CMS website for coding guidelines and applicable code combinations.

REFERENCES

1. Dwivedi P, Singh P, Patel TK, et al. Trans-nasal sphenopalatine ganglion block for post-dural puncture headache management: a meta-analysis of randomized trials. *Brazilian Journal of Anesthesiology.* 2023;73:782-793.
2. Hayes Inc. Intravenous Lidocaine Infusion for Neuropathic Pain: A Review of Reviews. https://evidence.hayesinc.com/report/dir.intravenous2030. Published 2021. Accessed 12/20/2024.

3. Xu J, Yang J, Lin P, Rosenquist E, Cheng J. Intravenous therapies for complex regional pain syndrome: a systematic review. *Anesthesia & Analgesia.* 2016;122(3):843-856.
4. O'Connell NE, Wand BM, Gibson W, Carr DB, Birklein F, Stanton TR. Local anaesthetic sympathetic blockade for complex regional pain syndrome. *Cochrane database of systematic reviews.* 2016(7).
5. Kim Y-C, Castañeda AM, Lee C-s, Jin H-S, Park KS, Moon JY. Efficacy and safety of lidocaine infusion treatment for neuropathic pain: a randomized, double-blind, and placebo-controlled study. *Regional Anesthesia & Pain Medicine.* 2018;43(4):415-424.
6. Liu H, Lu F, Zhou D, et al. The analgesic and emotional response to intravenous lidocaine infusion in the treatment of postherpetic neuralgia: a randomized, double-blinded, placebo-controlled study. *The Clinical Journal of Pain.* 2018;34(11):1025-1031.

POLICY REVISION HISTORY

DATE	REVISION SUMMARY
4/2025	New policy
2/2026	Annual update. No changes to criteria.

BILLING GUIDELINE APPENDIX

Diagnosis codes for indications considered "not medically necessary" include, but are not limited to, the ICD-10 codes listed below. Additional ICD codes may apply.

Migraine

G43.00	G43.519	G43.839
G43.001	G43.601	G43.901
G43.009	G43.609	G43.909
G43.011	G43.611	G43.911
G43.019	G43.619	G43.919
G43.101	G43.701	G43.A0
G43.109	G43.709	G43.A1
G43.111	G43.711	G43.B0
G43.119	G43.719	G43.B1
G43.401	G43.801	G43.C0
G43.409	G43.809	G43.C1
G43.411	G43.811	G43.D0
G43.419	G43.819	G43.D1
G43.501	G43.821	G43.E0
G43.509	G43.829	G43.E01
G43.511	G43.831	G43.E09

G43.E11 G43.E19

Cluster Headaches

G44.001
G44.009
G44.01
G44.011
G44.019
G44.021
G44.029
G44.031
G44.039
G44.041
G44.049
G44.051
G44.059
G44.091
G44.099

Headaches

G44.1
G44.201
G44.209
G44.211
G44.219
G44.221
G44.229
G44.301
G44.309
G44.311
G44.319
G44.321
G44.329
G44.40
G44.41
G44.51
G44.52
G44.53
G44.59
G44.81
G44.82
G44.83
G44.84
G44.85
G44.86
G44.89
R51.0
R51.9

Neuralgia, Neuropathy

B02.22
B02.23
B02.29
G50.0
G89.21
G89.22
G89.28
G89.29
G89.4
R39.82
G90.50
G90.51
G90.511
G90.512
G90.513
G90.519
G90.521
G90.522
G90.523
G90.529
G90.59
M79.7
G62.0
T45.1X5A
T45.1X5D
T45.1X5S
M79.2
R20.8
R20.2
G13.0
G54.5
G56.10
G56.20
G56.30
G57.00
G57.30
G58.0
G60.0
G60.1
G60.2
G60.3
G60.8
G60.9
G61.1
G61.81
G61.82
G62.89
G62.9
G63
G90.0
G90.01
G90.09
G90.9
G99.0
H46.2
H46.3
H47.01
H47.011
H47.012
H47.013

Diabetes (Neurological)

E08.4
E09.4
E09.40
E09.41
E09.42
E09.43
E09.44
E09.49
E10.4
E10.40
E10.41
E10.42
E10.43
E10.44
E10.49
E11.4
E11.40
E11.41
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