Sympathetic Blockade

Policy Number: 2024T0627G
Effective Date: September 1, 2024

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Related Commercial/Individual Exchange Policies
None

Application

UnitedHealthcare Commercial

This Medical Policy applies to all UnitedHealthcare Commercial benefit plans.

UnitedHealthcare Individual Exchange

This Medical Policy applies to Individual Exchange benefit plans in all states except for Colorado.

Coverage Rationale

Sympathetic blockade using a local anesthetic is proven and medically necessary for treating the following indications:

- Pancreatic cancer with severe abdominal or back pain
- Complex regional pain syndrome (CRPS)

For medical necessity clinical coverage criteria, refer to the InterQual® CP: Procedures, Sympathetic Blockade.

Click here to view the InterQual® criteria.

Sympathetic blockade is unproven and not medically necessary for treating the following indications:

- Chronic pancreatitis
- Chronic abdominal or back pain

Medical Records Documentation Used for Reviews

Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. Medical records documentation may be required to assess whether the member meets the clinical criteria for coverage but does not guarantee coverage of the service requested; refer to the protocol titled Medical Records Documentation Used for Reviews.

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered

health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

CPT Code	Description
64510	Injection, anesthetic agent; stellate ganglion (cervical sympathetic)
64517	Injection, anesthetic agent; superior hypogastric plexus
64520	Injection, anesthetic agent; lumbar or thoracic (paravertebral sympathetic)
64530	Injection, anesthetic agent; celiac plexus, with or without radiologic monitoring

Clinical Evidence

There is insufficient evidence to establish the safety and efficacy of sympathetic blockade for treating chronic pancreatitis (CP) and/or chronic abdominal or back pain. Well-designed, randomized controlled trials with large sample sizes and long-term follow-up are needed to establish the impact on health outcomes.

Liou et al. (2021) conducted a single-center retrospective study to determine the indications and effectiveness of CT-guided CP/retrocrural splanchnic nerve (RSN) blocks performed on patients with abdominal pain from non-cancer related sources. A total of 72 CT-guided CP/RSN blocks for abdominal pain not caused by cancer were administered to 40 patients from May 11, 2011, to July 7, 2020. Out of the 72 blocks, results identified 48 were effective for a mean of 51 days. The 24 ineffective blocks provided relief for a mean of 1 day. The blocks were divided into permanent versus temporary blocks. The18 permanent blocks, 9 were effective for a mean of 111 days. Of the 54 temporary blocks, 39 were effective for a mean of 37 days. The authors concluded there were no significant differences in effectiveness between celiac vs. splanchnic blocks in groups matched by indication and intended duration (temporary/permanent). In addition, they stated CT-guided CP/RSN blocks to be effective for the management of a variety of non-cancer related abdominal pain. Due to the study limitations of small sample size, retrospective design and reliance on patient-reported outcome data, the authors recommend further studies are warranted to optimize the efficacy of this pain-management strategy.

In a systematic review and meta-analysis, Jafri et al. (2017) aimed to assess the effectiveness of endotherapy in the treatment of pain related to CP. Sixteen studies comprised of 1498 patients with CP who underwent endotherapy between 1988 and 2017 were included in the review. Eleven studies presented data on immediate pain relief after endotherapy, and twelve studies presented data on both immediate and long-term pain relief. The compiled result of the sixteen studies for immediate pain relief demonstrated 88% efficacy of endotherapy. Similarly, analysis of pain relief on long term follow-up showed a 67% efficacy of endotherapy. The compiled complication rate for endotherapy in this review was 7.85% per ERCP/endo therapeutic procedure and the most common complications were acute pancreatitis, stent occlusion and stent migration. The authors concluded endotherapy in the management of both immediate and long-term pain related to CP is beneficial; however, efficacy decreases over time. The authors recommend future prospective and standardized, multicenter studies be conducted to evaluate efficacy.

Fabbri et al. (2014) conducted a systematic review of literature accumulated on endoscopic ultrasound (EUS)-guided interventions over the past 20 years, to assess scientific progress made in this field. The review found that the efficacy for steroid-based EUS-guided celiac plexus block (CPB) in patients with refractory pain due to CP showed only a 51.46% alleviation of abdominal pain. The authors concluded the development of new injected drugs or new techniques was needed in this setting. Additionally, up to 30% of patients experienced mild and self-limiting side effects, such as diarrhea, abdominal pain, and hypotension related to EUS CPB. Serious side effects included bleeding, abscess, abdominal ischemia, permanent paralysis, and death. The authors state that for those patients with CP, the risk of serious morbidity and mortality should be weighed against expected benefits.

Stevens et al. (2012) performed a single-center, blinded, randomized, controlled trial of 40 adult patients referred for EUS-CPB for treatment of painful CP to investigate whether addition of triamcinolone increases and lengthens pain relief compared with EUS-CPB with only bupivacaine. Patients were divided to two groups, one group received EUS-CPB with triamcinolone and bupivacaine, the other group received EUS-CPB with only bupivacaine. The primary end point was decrease in the pain disability index of ten or more points at one month following the procedure. Change in visual analogue scale, narcotic requirements, and quality of life were secondary end points. There were no significant differences in primary outcomes or secondary end points between groups and the trial was stopped for futility. The authors concluded triamcinolone does not increase pain relief or lengthen effects of EUS-CPB.

In a prospective randomized trial, Leblanc et al. (2009) compared the safety and clinical effectiveness of EUS-CPB for patients with CP and pain by using one versus two injections. Identification of factors that predict responsiveness is the secondary aim. Fifty individuals underwent a single EUS-CPB procedure using bupivacaine and triamcinolone injected in one or two sites at the level of the celiac trunk; 23 received one injection, 27 received two injections. The median duration of pain relief in the 31 responders was 28 days (range 1-673 days). Fifteen of 23 (65%) subjects who received one injection had relief from pain compared with 16 of 27 (59%) who received two injections. The median times to onset in the 1-injection and 2-injections groups were 21 and 14 days, respectively. No correlation existed between duration of pain relief and time to onset of pain relief or onset within 24 hours. Age, sex, race, prior EUS-CPB, and smoking or alcohol history did not predict duration of pain relief. The study found there was no difference in onset of pain relief or duration of pain relief in subjects with CP. No differences were observed in relief of pain when 1-sided injections were compared with 2-sided injections. Limitations include lack of double blinding, lack of criterion standard for diagnosing CP, and the majority of subjects in the study had mild CP and were younger than 50 years of age. The authors recommend future studies and consideration for a prospective, randomized, placebo-controlled study.

Clinical Practice Guidelines

American College of Gastroenterology (ACG)

An ACG 2020 Chronic Pancreatitis guideline for management of pain in CP states the following:

- We suggest considering celiac plexus block for treatment of pain in CP (conditional recommendation, very low quality of evidence) (Gardner et al., 2020).

American Gastroenterological Association (AGA)

AGA 2022 clinical practice update on the endoscopic approach to recurrent acute and chronic pancreatitis best practice advice states the following:

- Celiac plexus block (CPB) should not be routinely performed for the management of pain due to CP. The decision to proceed with CPB in selected patients with debilitating pain in whom other therapeutic measures have failed can be considered on a case-by-case basis, but only after discussion of the unclear outcomes of this intervention and its procedural risks (Strand et al., 2022).

United European Gastroenterology (UEG) and Harmonizing Diagnosis and Treatment of Chronic Pancreatitis Across Europe (HaPanEU)

The UEG and HaPanEU 2015 diagnosis and therapy of chronic pancreatitis guideline states the following:

- Treatments such as EUS-guided plexus block, splanchnic nerve block, spinal cord stimulation, transcranial magnetic stimulation and acupuncture may be effective in selected cases of painful CP (GRADE 1C, moderate agreement) (Löhr et al., 2017).

International Association of Pancreatology (IAP)/American Pancreatic Association (APA)/Japan Pancreas Society (JPS)/European Pancreatic Club (EPC)

The IAP, APA, JPS, and EPC 2017 understanding and management of pain in chronic pancreatitis guideline states the following:

- Neurolytical interventions can be used in selected patients with painful CP who have failed endoscopic and surgical treatment. Thoracoscopic splanchnic denervation is more effective regarding long-term pain relief in patients who are not on chronic opioid treatment. Behavioral interventions should be part of the multidisciplinary approach in CP pain particularly when patients experience psychological impact of pain and quality of life has decreased. Early intervention in children may be particularly important (Quality assessment: low; Recommendation: strong; Agreement: conditional) (Drewes et al., 2017).

The authors state neurolytic interventions: celiac plexus blocks and splanchnic nerve ablation are generally advised in patients with CP when other medical treatments for pain have failed. However, CPBs are rarely used for CP due to pain relief is short term, and side effects may include hypotension and diarrhea (Drewes et al., 2017).

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Policy History/Revision Information

Date	Summary of Changes
09/01/2024	**Medical Records Documentation Used for Reviews** (previously titled *Documentation Requirements*) • Replaced list of *Required Clinical Information* with instruction to refer to the protocol titled Medical Records Documentation Used for Reviews **Supporting Information** • Updated *Clinical Evidence* section to reflect the most current information • Archived previous policy version 2023T0627F

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the member specific benefit plan document must be referenced as the terms of the member specific benefit plan may differ from the standard plan. In the event of a conflict, the member specific benefit plan document governs. Before using this policy, please check the member specific benefit plan document and any applicable federal or state mandates. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

This Medical Policy may also be applied to Medicare Advantage plans in certain instances. In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence (Medicare IOM Pub. No. 100-16, Ch. 4, §90.5).

UnitedHealthcare may also use tools developed by third parties, such as the InterQual® criteria, to assist us in administering health benefits. UnitedHealthcare Medical Policies are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.