



CLINICAL MEDICAL POLICY	
Policy Name:	Knee Pain Treatment with Genicular Procedures
Policy Number:	MP-145-MD-PA
Responsible Department(s):	Medical Management
Provider Notice/Issue Date:	09/28/2026
Effective Date:	12/01/2026
Next Annual Review:	12/2027
Implementation Date:	02/18/2026
Products:	Highmark Wholecare SM Medicaid
Application:	All participating hospitals and providers
Page Number(s):	1 of 4

Policy History

Date	Action
12/01/2026	Provider Effective date
04/09/2026	PARP Approval
01/21/2026	QI/UM Committee review
01/21/2026	Policy initially developed

Disclaimer

Highmark WholecareSM medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

Policy Statement

Highmark WholecareSM does not provide coverage under the Company's Medicaid products for the treatment of knee pain by genicular procedures because the treatment is considered experimental/investigational.

This policy is designed to address medical necessity guidelines that are appropriate for the majority of individuals with a particular disease, illness, or condition. Each person's unique clinical circumstances warrant individual consideration, based upon review of applicable medical records.

(Current applicable Pennsylvania HealthChoices Agreement Section V. Program Requirements, B. Prior Authorization of Services, 1. General Prior Authorization Requirements.)

Definitions

Prior Authorization Review Panel (PARP) – A panel of representatives from within the PA Department of Human Services who have been assigned organizational responsibility for the review, approval and denial of all PH-MCO Prior Authorization policies and procedures.

Genicular nerve block – an injection of localized anesthetic medicine to temporarily numb nerves that transmit pain from knee joint. Candidates for this test include individuals who have:

- Individuals who are not ideal candidates for knee replacement surgery and have knee pain from conditions like arthritis
- Individuals who have persistent pain after knee replacement surgery.

Procedures

1. Genicular nerve ablation and genicular nerve blocks are considered experimental/investigational, and therefore, not medically necessary as treatment for chronic knee pain due to, but not limited to ANY of the following:
 - Degenerative joint disease
 - Osteoarthritis of the knee
 - As treatment prior to, or following knee replacement surgery
 - As treatment for individuals who are not considered candidates for knee replacement surgery.

Note: This policy does not apply to regional anesthetic blocks for acute surgical pain or for the use of peripheral nerve blocks (for example, sciatic and/or femoral nerve blocks) as an adjunct to systemic analgesia in the perioperative period for major knee surgery.

2. Post-payment Audit Statement
The medical record must include documentation that reflects the medical necessity criteria and is subject to audit by Highmark WholecareSM at any time pursuant to the terms of your provider agreement.

Governing Bodies Approval

CMS

There are no current CMS National Coverage Determinations (NCD) and/or Local Coverage Determinations (LCD) for this topic.

Summary of Literature

Up to 20 million adults in the United States suffer from chronic osteoarthritis of the knee, making it one of the most common diseases of advanced age. Approximately 700,000 cases of the disease progress to the need for a total knee joint replacement. However, many individuals are not suitable candidates for invasive procedures due to comorbidities, age, and/or body mass index. An estimated 10-34% of individuals who have a total knee replacement can experience long-term pain after the procedure. Alternative therapies can be associated with less than optimal outcomes, including arthroscopic debridement or injections.

Genicular nerve block treatment has been utilized as a treatment for a variety of pain conditions including pain treatment prior to knee replacement, adjunctive pain treatment following knee replacement, as a pain treatment plan for individuals who are not a candidate for knee replacement, osteoarthritis of the knee and degenerative joint disease.

Pain signals are generated when an individual experiences knee pain. The pain signals are created from the several nerve branches, including the genicular nerve. A genicular nerve block places a small amount of local anesthetic on the nerve to determine if the knee experiences sufficient pain relief to justify performing a therapeutic neurotomy.

Radiofrequency ablation of the genicular nerves is performed to restore function and alleviate knee pain. Genicular artery embolization involves the injection of an agent into the genicular artery to prevent the flow of blood.

A study compared ultrasound-guided pulsed radiofrequency (PRF) of the genicular nerve with the nerve block using local anesthetic and steroids for osteoarthritis (OA) pain management. Thirty individuals with OA of the knee were randomly assigned to receive either ultrasound-guided PRF of the genicular nerve (PRF group) or nerve block with bupivacaine and methylprednisone acetate (local anesthetic steroid group). Verbal numeric rating scale (VNRS) and Western Ontario McMaster Universities Osteoarthritis Index (WOMAC) scores were measured at pre-procedure and 1-, 4-, and 12-weeks post-procedure. VNRS scores decreased significantly ($P < 0.001$) in both groups at 12 weeks and other follow-up times compared to baseline. There was no intergroup difference in VNRS ($P = 0.893$) and WOMAC scores ($P = 0.983$). No complications were reported (Ghai et al., 2022).

A randomized trial of 64 participants showed the outcomes for individuals with osteoarthritis of the knee who received either a genicular nerve block or IAS injections. Follow-up was performed at 12 weeks. Assessment was done using Sonography Of the Large joints in Rheumatology (SOLAR) scoring, VAS, and Lysholm scores. Pain was shown to improve in both treatment groups with no significant between-group differences. Limitations include a short-term follow-up at 12 weeks, small sample size, and lack of blinding (Elsaman et al., 2021).

A prospective observational pilot study reported the outcome of genicular artery embolization in individuals with refractory mild to moderate knee osteoarthritis. Genicular artery embolization was performed on 24 knees of 22 participants (8 knees without bone marrow lesion, 13 knees with bone marrow lesion, and 3 knees with bone marrow lesion and subchondral insufficiency fracture of the knee). Knee pain was assessed using VAS at baseline and at 3 and 6 months following the procedure. WOMAC was also used to assess knee function at baseline and 3 months after the procedure. There were no serious adverse events reported. The lack of a control group in this study prevents firm conclusions about the

relative effectiveness of genicular artery embolization compared to other knee pain treatments (Wang et al., 2023).

Coding Requirements

Noncovered Procedure Codes

CPT Code	Description
64454	Injection(s), anesthetic agent(s) and/or steroid; genicular nerve branches, including imaging guidance, when performed
64624	Destruction by neurolytic agent, genicular nerve branches including imaging guidance, when performed
64999	Unlisted procedure, nervous system

Reimbursement

Participating facilities will be reimbursed per their Highmark WholecareSM contract.

Reference Sources

Ghai B, Kumar M, Makkar JK, Goni V. Comparison of ultrasound guided pulsed radiofrequency of genicular nerve with local anesthetic and steroid block for management of osteoarthritis knee pain. The Korean journal of pain. 2022. Accessed on January 27, 2026.

Elsaman AM, Maaty A, Hamed A. Genicular nerve block in rheumatoid arthritis: a randomized clinical trial. Clin Rheumatol. 2021. Accessed on January 27, 2026.

Wang B, Tai TW, Liang KW, et al. Short-term effects of genicular artery embolization on symptoms and bone marrow abnormalities in patients with refractory knee osteoarthritis. J Vasc Interv Radiol. 2023. Accessed on January 27, 2026.