



Viscosupplementation – Single Service

Clinical Guidelines for Medical Necessity Review

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Guideline Information:

Specialty Area: Diseases & Disorders of the Musculoskeletal System

Guideline Name: Viscosupplementation (Single Service)

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Type: Adult (18+ yo) | Pediatric (0-17yo)

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Medical Necessity Criteria

Service: Viscosupplementation

General Guidelines

- **Units, Frequency, & Duration:** Viscosupplementation involves the injection of hyaluronic acid into a knee joint affected by osteoarthritis. When medical necessity criteria are met, one to four injections spaced one week apart will be administered, based upon the specific agent utilized.
- **Criteria for Subsequent Requests:** Additional injections may be appropriate if the pain returns at a moderate or severe level or loss of function occurs, if the patient has experienced improvement in pain and functional capacity following the previous injections, and at least six months have passed since prior injections were administered.¹
- **Recommended Clinical Approach:** When a patient has not experienced symptom relief from conservative, non-pharmacological therapies (exercise, physical therapy, weight loss) and simple analgesics such as acetaminophen, alternative nonsurgical therapies to viscosupplementation include: nonsteroidal anti-inflammatory medications (NSAIDs), corticosteroid intraarticular injections. Surgical intervention may be necessary and includes arthroscopic surgery and total knee replacement.²
- **Exclusions:** None

Medical Necessity Criteria

Indications

- **Viscosupplementation** is considered appropriate if **ANY** of the following is **TRUE**^{4,5}:
- ◆ Initial injection(s) are considered appropriate when **ALL** of the following are **TRUE** :
 - The site of the injection is the knee joint; **AND**
 - **ANY** of the following osteoarthritis symptoms³:
 - Painful range of motion attributable to osteoarthritis;
OR
 - Functional impairment attributable to osteoarthritis;
OR
 - Crepitus with range of motion; **OR**

- Presence of popliteal cyst (Baker cyst); **AND**
- Mild to moderate osteoarthritis diagnosis has been confirmed by radiography; **AND**
- Failure of conservative management for greater than 3 months including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; **AND**
 - Physical therapy or physician-directed home exercise program; **AND**
 - **ANY** of the following:
 - Corticosteroid injection if medically appropriate; **OR**
 - Corticosteroid injection is contraindicated; **OR**
- ◆ Repeat injection(s) are considered appropriate when **ALL** of the following are **TRUE**:
 - Initial injection criteria are met; **AND**
 - The patient's symptoms have recurred; **AND**
 - The patient experienced improvement in **ANY** of the following following the previous injection(s):
 - Pain; **OR**
 - Functional improvement; **AND**
 - At least six months have passed since the prior injection^{1,4}.

Non-Indications

→ **Viscosupplementation** is not considered appropriate if **ANY** of the following is **TRUE**²:

- ◆ The site of injection is not the knee joint; **OR**
- ◆ The patient has known hypersensitivity to hyaluronate preparations; **OR**
- ◆ Intra-articular injections are contraindicated for current or past infections or skin diseases at the injection site.

Level of Care Criteria

Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
20610	Arthrocentesis, aspiration and/or injection, major joint or bursa (eg, shoulder, hip, knee, subacromial bursa); without ultrasound guidance
20611	Arthrocentesis, aspiration and/or injection, major joint or bursa (eg, shoulder, hip, knee, subacromial bursa); with ultrasound guidance, with permanent recording and reporting
J7318	Hyaluronan or derivative, durolane, for intra-articular injection, 1 mg
J7320	Hyaluronan or derivative, genvisc 850, for intra-articular injection, 1 mg
J7321	Hyaluronan or derivative, hyalgan, supartz or visco-3, for intra-articular injection, per dose
J7322	Hyaluronan or derivative, hymovis, for intra-articular injection, 1 mg
J7323	Hyaluronan or derivative, euflexxa, for intra-articular injection, per dose
J7324	Hyaluronan or derivative, orthovisc, for intra-articular injection, per dose
J7325	Hyaluronan or derivative, synvisc or synvisc-one, for intra-articular injection, 1 mg
J7326	Hyaluronan or derivative, gel-one, for intra-articular injection, per dose
J7327	Hyaluronan or derivative, monovisc, for intra-articular injection, per dose
J7328	Hyaluronan or derivative, gelsyn-3, for intra-articular injection, 0.1 mg
J7329	Hyaluronan or derivative, trivisc, for intra-articular injection, 1 mg
J7331	Hyaluronan or derivative, synjoynt, for

	intra-articular injection, 1 mg
J7332	Hyaluronan or derivative, triluron, for intra-articular injection, 1 mg

Medical Evidence

Sinusas (2012) evaluated the evidence on diagnosis and treatment of osteoarthritis. Study findings revealed exercise, specifically swimming, elliptical training and cycling as the primary nonpharmacological recommendation in weight-bearing joint osteoarthritis. Statistically significant improvements were found in validated arthritis symptom scores at six, 12, 18, and 24 months. Studies discovered robust improvements were found in land-based exercise opposed to those that were water-based. There were questionable study findings related to treatments such as therapeutic ultrasound. A five percent reduction in baseline body weight was found to reduce disability in a meta-analysis. Acetaminophen was stated to be the mainstay of mild arthritis treatment. A Cochrane review was cited that stated that acetaminophen and NSAIDs were equal in pain relief with less gastrointestinal side effects from the acetaminophen. Surgery was stated to be reserved for those patients who did not respond well to nonsurgical treatment.³

Peck and colleagues (2021) performed a systematic review of the literature related to viscosupplementation in osteoarthritis of the knee. A 2006 Cochrane review of 76 randomized controlled trials supported the use of viscosupplementation in knee osteoarthritis. Despite such robust conclusions, current recommendations are conflicting. The American Academy of Orthopedic Surgeons did not recommend viscosupplementation for osteoarthritis of the knee in their 2013 clinical practice guidelines. The Osteoarthritis Research Society International offered an “uncertain” recommendation in 2014, and the American College of Rheumatology did not recommend this treatment either.⁴

Legré-Boyer reviewed viscosupplementation techniques, indications, and results in 2014. They found moderate but significant efficacy (20%) in 60-70% of patients surveyed with knee osteoarthritis. The efficacy onset was found to be 1-4 weeks later than with corticosteroids with longer symptom relief and functional improvement, from six to up to 12 months. It was stated that some meta-analyses created debate with discordant findings. Regarding technique, it was found that 10-30% of injections performed by senior physicians were known to be defective.⁵

References

1. Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD). Hyaluronic acid injections for knee osteoarthritis (L39260). Effective August 21, 2022. <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=39260&ver=5&bc=0>.
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3. Sinusas K. Osteoarthritis: diagnosis and treatment. *Am Fam Physician*. 2012;85(1):49-56. <https://www.aafp.org/pubs/afp/issues/2012/0101/p49.pdf>.
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Clinical Guideline Revision History/Information

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