

## Clinical Policy: Hyaluronate Derivatives

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Line of Business: Illinois Medicaid

[Revision Log](#)

See **Important Reminder** at the end of this policy for important regulatory and legal information.

### Description

The following are hyaluronate derivatives requiring prior authorization: sodium hyaluronate (Euflexxa<sup>®</sup>, Gelsyn-3<sup>™</sup>, GenVisc<sup>®</sup> 850, Hyalgan<sup>®</sup>, Supartz<sup>™</sup>, Supartz FX<sup>™</sup>, Synjoynt<sup>™</sup>, Triluron<sup>™</sup>, TriVisc<sup>™</sup>, VISCO-3<sup>™</sup>), hyaluronic acid (Durolane<sup>®</sup>), cross-linked hyaluronate (Gel-One<sup>®</sup>), hyaluronan (Hymovis<sup>®</sup>, Orthovisc<sup>®</sup>, Monovisc<sup>®</sup>), and hylan polymers A and B (Synvisc<sup>®</sup>, Synvisc One<sup>®</sup>).

### FDA Approved Indication(s)

Hyaluronate derivatives are indicated for the treatment of pain in osteoarthritis (OA) of the knee in patients who have failed to respond adequately to conservative non-pharmacologic therapy and to simple analgesics (e.g., acetaminophen) or non-steroidal anti-inflammatory drugs (NSAIDs).

### Policy/Criteria

*Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.*

*Health plan approved formularies should be reviewed for all coverage determinations. Requirements to use preferred alternative agents apply only when such requirements align with the health plan approved formulary.*

It is the policy of health plans affiliated with Envolve Pharmacy Solutions<sup>™</sup> that hyaluronate derivatives are **medically necessary** when the following criteria are met:

#### I. Initial Approval Criteria

##### A. Osteoarthritis of the Knee (must meet all):

1. Diagnosis of OA of the knee supported by imaging (e.g., X-ray, MRI);
2. Prescribed by or in consultation with a rheumatologist, orthopedist, or sports medicine physician;
3. Inadequate response to physical therapy as directed by a physical therapist;
4. Failure of  $\geq 4$  week trial of one of the following (a or b), as evidenced by claims history, unless all are contraindicated or clinically significant adverse effects are experienced:
  - a. Oral NSAID at continuous therapeutic (prescription strength) dosing;
  - b. Topical NSAID\* if member is  $\geq 75$  years old or unable to take an oral NSAID;  
*\*Prior authorization may be required for topical NSAIDs*
5. Trial of at least one intra-articular glucocorticoid injection with a documented positive but inadequate response (*see Appendix D for examples*) unless contraindicated or history of intolerance;  
*\*Prior authorization may be required for intra-articular glucocorticoid injections*
6. Member does not have any of the following:
  - a. Coexistent active inflammatory arthritis other than OA (e.g., rheumatoid arthritis, spondylitis, gouty arthritis) in the targeted knee;
  - b. History of total knee arthroplasty in the targeted knee;
7. Dose does not exceed one treatment cycle per knee for a 6 month period.

**Approval duration: 6 months (one treatment cycle per knee)** (*refer to section V*)

**B. Other diagnoses/indications**

1. Refer to ERX.PA.01 if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized).

**II. Continued Therapy**

**A. Osteoarthritis of the Knee** (must meet all):

1. Currently receiving medication via a health plan affiliated with Envolve Pharmacy Solutions or member has previously met initial approval criteria;
2. Member is responding positively to therapy as evidenced by the following, including but not limited to:
  - a. Decrease in pain symptoms as evidenced by improvement in the Visual Analog Scale for pain;
  - b. Improvement in ambulation or range of motion;
  - c. Improvement in stiffness;
  - d. Decrease in rescue pain medication use;
3. Member has not had total knee arthroplasty in the targeted knee;
4. Six or more months have elapsed since the last treatment cycle;
5. Dose does not exceed one treatment cycle per knee.

**Approval duration: 6 months (one treatment cycle per knee)** (refer to section V)

**B. Other diagnoses/indications** (must meet 1 or 2):

1. Currently receiving medication via a health plan affiliated with Envolve Pharmacy Solutions and documentation supports positive response to therapy.

**Approval duration: Duration of request or 6 months (whichever is less);** or

2. Refer to ERX.PA.01 if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized).

**III. Diagnoses/Indications for which coverage is NOT authorized:**

- A. Non-FDA approved indications**, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off-label use policy – ERX.PA.01 or evidence of coverage documents.

**IV. Appendices/General Information**

*Appendix A: Abbreviation/Acronym Key*

FDA: Food and Drug Administration

NSAIDs: non-steroidal anti-inflammatory drugs

OA: osteoarthritis

*Appendix B: Therapeutic Alternatives*

*This table provides a listing of preferred alternative therapy recommended in the approval criteria.*

*The drugs listed here may not be a formulary agent and may require prior authorization.*

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
<b>Oral NSAIDs</b>		
diclofenac (Cataflam <sup>®</sup> , Voltaren <sup>®</sup> )	50 mg PO BID to TID	150 mg/day
etodolac (Lodine <sup>®</sup> )	400-500 mg PO BID	1,200 mg/day
fenoprofen (Nalfon <sup>®</sup> )	400-600 mg PO TID to QID	3,200 mg/day
ibuprofen (Motrin <sup>®</sup> )	400-800 mg PO TID to QID	3,200 mg/day
indomethacin (Indocin <sup>®</sup> )	25-50 mg PO BID to TID	200 mg/day
indomethacin SR (Indocin SR <sup>®</sup> )	75 mg PO QD to BID	150 mg/day
ketoprofen (Orudis <sup>®</sup> )	25-75 mg PO TID to QID	300 mg/day
meloxicam (Mobic <sup>®</sup> )	7.5-15 mg PO QD	15 mg/day
naproxen (Naprosyn <sup>®</sup> )	250-500 mg PO BID	1,500 mg/day

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
<b>Oral NSAIDs</b>		
naproxen sodium (Anaprox®, Anaprox DS®)	275-550 mg PO BID	1,650 mg/day
oxaprozin (Daypro®)	600-1,200 mg PO QD	1,800 mg/day
piroxicam (Feldene®)	10-20 mg PO QD	20 mg/day
salsalate (Disalcid®)	1,500 mg PO BID or 1000 mg PO TID	3,000 mg/day
sulindac (Clinoril®)	150 mg-200 mg PO BID	400 mg/day
tolmetin DS (Tolectin DS®)	400 mg PO TID, titrated up to 1,800 mg QD	1,800 mg/day
<b>Topical NSAIDs</b>		
diclofenac 1.5% (Pennsaid®)	40 drops QID on each painful knee	160 drops/knee/day
Voltaren® Gel 1% (diclofenac)	2-4 g applied to affected area QID	32 g/day
<b>Intra-articular Glucocorticoids</b>		
triamcinolone acetonide (Kenalog®)	40 mg (1 mL) for large joints	80 mg/treatment
Aristospan® (triamcinolone hexacetonide)	10-20 mg for large joints	20 mg/treatment
methylprednisolone acetate (Depo-Medrol®)	20-80 mg for large joints	80 mg/treatment
hydrocortisone acetate	25-50 mg for large joints	75 mg/treatment
Zilretta® (triamcinolone acetonide)	32 mg (5 mL) for large joints	32 mg/treatment

Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.

#### Appendix C: Contraindications/Boxed Warnings

- Contraindication(s):
  - Durolane, Euflexxa, Gelsyn-3, GenVisc 850, Hyalgan, Supartz, Supartz FX, Synjoynt, Triluron, TriVisc, VISCO-3, Gel-One, Hymovis, Orthovisc, Monovisc, Synvisc, Synvisc One:
    - Known hypersensitivity to hyaluronan preparations
    - Patients with knee joint infections, infections or skin disease in the area of the injection site
  - Hymovis, Monovisc, Orthovisc: known hypersensitivity to gram positive bacterial proteins
  - Monovisc: known systemic bleeding disorders
- Boxed warning(s): none reported

#### Appendix D: General Information

- Examples of documented positive but inadequate response to intra-articular glucocorticoid injections include but are not limited to the following: inadequate pain relief, frequent need of rescue medications such as NSAIDs or opioids, need to decrease or inability to increase activity levels, adequate pain relief but with steroid-induced hyperglycemia.
- Per the 2014 Osteoarthritis Research Society International guidelines, hyaluronate derivatives are not appropriate for multiple joint OA subtypes or joint OA other than the knee.
  - In DeGroot et al., single hyaluronic acid was compared to saline injection in a small RCT (N=64). At 6 and 12 weeks, there were no significant differences in improvement between the two groups on the American Orthopedic Foot and Ankle Society clinical rating score, the Ankle Osteoarthritis Scale score, or the patient-reported visual analog pain scale. Migliore et al., conducted a review of seven studies for ankle OA that showed mixed results, but were unable to complete a meta-analysis due to use of study design limitations (e.g., inconsistent use of primary endpoints, varying comparators, small sample size) leading to study heterogeneity.
  - Richette et al. conducted a multicenter, randomized, placebo-controlled trial in hip OA. At 3 months, hyaluronic acid was not more effective than placebo with a treatment difference in

pain score of -0.15 (95% CI -11.04, 10.74). Responder rates were 33.3% for hyaluronic acid and 32.6% for placebo (p = 0.94). Additionally, analgesics were taken by 81% of study days by patients on placebo, and 88% of patients in the hyaluronic acid group.

- There are no studies that have evaluated the efficacy of hyaluronate derivatives in patients with OA and coexistent other inflammatory conditions such as rheumatoid arthritis.
- There is no data to suggest efficacy of hyaluronate derivatives in patients who have had total knee arthroplasty in the targeted knee.

#### V. Dosage and Administration

Drug Name	Active Ingredient	Dose of Active Ingredient per Injection	Treatment Cycle*
Durolane	Hyaluronic acid	60 mg (3 mL)	1 injection
Euflexxa	Sodium hyaluronate	20 mg (2 mL)	3 injections
Gel One	Cross-linked sodium hyaluronate	30 mg (3 mL)	1 injection
GenVisc 850	Sodium hyaluronate	25 mg (2.5 mL)	3-5 injections
Gelsyn-3	Sodium hyaluronate	16.8 mg (2 mL)	3 injections
Hyalgan	Sodium hyaluronate (Hyalectin <sup>®</sup> )	20 mg (2 mL)	3-5 injections
Hymovis	Sodium hyaluronate (HYADD <sup>®4</sup> )	24 mg (3 mL)	2 injections
Monovisc <sup>‡</sup>	Cross-linked sodium hyaluronate	88 mg (4 mL)	1 injection
Orthovisc <sup>‡</sup>	Sodium hyaluronate	30 mg (2 mL)	3-4 injections
Supartz FX	Sodium hyaluronate	25 mg (2.5 mL)	3-5 injections
Synjoynt	Sodium hyaluronate	20 mg (2 mL)	3 injections
Synvisc	Cross-linked hylan G-F 20 (hylan A and hylan B polymers)	16 mg (2 mL)	3 injections
Synvisc One	Cross-linked hylan G-F 20 (hylan A and hylan B polymers)	48 mg (6 mL)	1 injection
Triluron	Sodium hyaluronate	20 mg (2 mL)	3 injections
TriVisc	Sodium hyaluronate	25 mg (2.5 mL)	3 injections
VISCO-3	Sodium hyaluronate	25 mg (2.5 mL)	3 injections

\*Treatment cycle: Total number of injection per cycle per knee (if treating both knees, double the number of injections per treatment cycle).

<sup>‡</sup>Per product label, one injection of Monovisc is equivalent to 3 injections of Orthovisc.

#### VI. Product Availability

Drug Name	Active Ingredient	Availability**
Durolane	Hyaluronic acid	3 mL syringe
Euflexxa	Sodium hyaluronate	2.25 mL syringe
Gel One	Cross-linked sodium hyaluronate	3 mL syringe
GenVisc 850	Sodium hyaluronate	3 mL syringe
Gelsyn-3	Sodium hyaluronate	2.25 mL syringe
Hyalgan	Sodium hyaluronate (Hyalectin <sup>®</sup> )	2 mL vial or 2 mL syringe
Hymovis	Sodium hyaluronate (HYADD <sup>®4</sup> )	5 mL syringe
Monovisc <sup>‡</sup>	Cross-linked sodium hyaluronate	5 mL syringe
Orthovisc <sup>‡</sup>	Sodium hyaluronate	3 mL syringe
Supartz FX	Sodium hyaluronate	2.5 mL syringe
Synjoynt	Sodium hyaluronate	3 mL syringe
Synvisc	Cross-linked hylan G-F 20 (hylan A and hylan B polymers)	2.25 mL syringe
Synvisc One	Cross-linked hylan G-F 20 (hylan A and hylan B polymers)	10 mL syringe
Triluron	Sodium hyaluronate	2 mL syringe or 2 mL vial
TriVisc	Sodium hyaluronate	3 mL syringe
VISCO-3	Sodium hyaluronate	2.5 mL syringe

\*\*All syringes/vials are single-use (i.e., one injection/one knee); syringes are pre-filled.

<sup>‡</sup>Per product label, one injection of Monovisc is equivalent to 3 injections of Orthovisc.

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Reviews, Revisions, and Approvals	Date	P&T Approval Date
Policy created	04.21.21	05.21
4Q 2021 annual review: added allowable treatment number per duration to initial and continued criteria; references reviewed and updated.	08.11.21	11.21

**Important Reminder**

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information.

This Clinical Policy is not intended to dictate to providers how to practice medicine, nor does it constitute a contract or guarantee regarding payment or results. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members.

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