

Clinical Policy: Hyaluronate Derivatives

Reference Number: CP.PHAR.05

Effective Date: 10.01.08

Last Review Date: 05.18

Line of Business: Commercial, Medicaid, HIM-Medical Benefit

[Coding Implications](#)[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[®], Gelsyn-3[™], GenVisc[®]850, Hyalgan[®], Supartz FX[™]), hyaluronic acid (Durolane[®]), cross-linked hyaluronate (Gel-One[®]), hyaluronan (Hymovis[®], Orthovisc[®], Monovisc[®]), and hylan polymers A and B (Synvisc[®], Synvisc One[®]).

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.

It is the policy of health plans affiliated with Centene Corporation[®] 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 radiologic imaging;
2. Prescribed by or in consultation with a rheumatologist or an orthopedist;
3. Inadequate response to physical therapy;
4. Failure of a ≥ 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 ≥ 75 years old or unable to take oral NSAID;
*Topical NSAID may require prior authorization
5. Trial of at least one intra-articular glucocorticoid injection with a documented positive but inadequate response unless contraindicated or history of intolerance;
6. Member does not have any of the following (a or b):
 - 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.

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

B. Other diagnoses/indications

1. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): CP.CPA.09 for commercial, HIM.PHAR.21 for health insurance marketplace, and CP.PMN.53 for Medicaid.

II. Continued Therapy

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

1. Currently receiving medication via Centene benefit or member has previously met initial approval criteria;
2. Member is responding positively to therapy (*see Appendix C*);
3. Member has not had total knee arthroplasty in the targeted knee;
4. Six or more months have elapsed since the last treatment cycle.

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

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

1. Currently receiving medication via Centene benefit and documentation supports positive response to therapy.
Approval duration: Duration of request or 6 months (whichever is less); or
2. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): CP.CPA.09 for commercial, HIM.PHAR.21 for health insurance marketplace, and CP.PMN.53 for Medicaid.

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 policies – CP.CPA.09 for commercial, HIM.PHAR.21 for health insurance marketplace, and CP.PMN.53 for Medicaid or evidence of coverage documents.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

FDA: Food and Drug Administration

NSAID: non-steroidal anti-inflammatory drug

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 for all relevant lines of business and may require prior authorization.

| Drug | Dosing Regimen | Dose Limit/ Maximum Dose |
|-------------------------------------|-------------------|-----------------------------|
| Oral NSAIDs | | |
| diclofenac (Voltaren [®]) | 50 mg PO TID | 150 mg/day |
| etodolac (Lodine [®]) | 400-500 mg PO BID | 1200 mg/day |

| Drug | Dosing Regimen | Dose Limit/ Maximum Dose |
|--|---|-----------------------------|
| fenoprofen (Nalfon [®]) | 400 mg PO TID to QID | 3200 mg/day |
| ibuprofen (Motrin [®]) | 400-800 mg PO TID to QID | 3200 mg/day |
| indomethacin (Indocin [®]) | 25-50 mg PO BID to TID | 200 mg/day |
| indomethacin SR (Indocin SR [®]) | 75 mg PO QD to BID | 150 mg/day |
| ketoprofen (Orudis [®]) | 25-75 mg PO TID to QID | 300 mg/day |
| meloxicam (Mobic [®]) | 7.5-15 mg PO QD | 15 mg/day |
| naproxen (Naprosyn [®]) | 250-500 mg PO BID | 1500 mg/day |
| naproxen sodium (Anaprox [®] , Anaprox DS [®]) | 275-550 mg PO BID | 1650 mg/day |
| oxaprozin (Daypro [®]) | 600-1200 mg PO BID | 1800 mg/day |
| piroxicam (Feldene [®]) | 10-20 mg PO QD | 20 mg/day |
| salsalate (Disalcid [®]) | 500-750 mg PO TID, titrated up to 3000 mg QD | 3000 mg/day |
| sulindac (Clinoril [®]) | 150 mg-200 mg PO BID | 400 mg/day |
| tolmetin DS (Tolectin DS [®]) | 400 mg PO TID, titrated up to 1800 mg QD | 1800 mg/day |
| Topical NSAIDs | | |
| diclofenac 1.5% (Pennsaid [®]) | 40 drops QID on each painful knee | 320 drops/day |
| Voltaren [®] Gel 1% (diclofenac) | 2-4 g applied to affected area QID | 32 g/day |
| Intra-articular glucocorticoids | | |
| Kenalog [®] (triamcinolone acetone) | 40 mg (1 mL) for large joints | 80 mg/treatment |
| Aristospan [®] (triamcinolone hexacetone) | 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 |

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: General Information

- Positive response to therapy with hyaluronate derivatives includes decrease in pain symptoms as evidenced by improvement in the Visual Analog Scale for pain, improvement in ambulation or range of motion, improvement in stiffness, and/or decrease in rescue medication use.
- 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 [®]) | 20 mg (2 mL) | 3-5 injections |
| Hymovis | Sodium hyaluronate (HYADD [®] 4) | 24 mg (3 mL) | 2 injections |
| Monovisc [‡] | Cross-linked sodium hyaluronate | 88 mg (4 mL) | 1 injection |
| Orthovisc [‡] | Sodium hyaluronate | 30 mg (2 mL) | 3-4 injections |
| Supartz FX | Sodium hyaluronate | 25 mg (2.5 mL) | 3-5 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 |

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

[‡]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 [®]) | 2 mL vial or 2 mL syringe |
| Hymovis | Sodium hyaluronate (HYADD ^{®4}) | 5 mL syringe |
| Monovisc [‡] | Cross-linked sodium hyaluronate | 5 mL syringe |
| Orthovisc [‡] | Sodium hyaluronate | 3 mL syringe |
| Supartz FX | Sodium hyaluronate | 2.5 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 |

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

[‡]Per product label, one injection of Monovisc is equivalent to 3 injections of Orthovisc.

VII. References

1. Euflexxa Prescribing Information. Parsippany, NJ: Ferring Pharmaceuticals, Inc. July 2016. Available at <http://www.euflexxa.com/>. Accessed January 28, 2018.
2. Gel-One Prescribing Information. Warsaw, IN: Zimmer; May 2011. Available at <http://www.zimmerbiomet.com/content/dam/zimmer-web/documents/en-US/pdf/medical-professionals/biologics-sports-medicine/Gel-One-Pkg-Insert-Final.pdf>. Accessed January 28, 2018.
3. Hyalgan Prescribing Information. Parsippany, NJ: Fidia Pharma USA, Inc.; May 2014. Available at <https://hyalgan.com/>. Accessed January 28, 2018.
4. Monovisc Prescribing Information. Bedford, MA: Anika Therapeutics, Inc. March 2014. Received from distributor, DePuy Synthes Mitek Sports Medicine, April 21, 2017.
5. Orthovisc Prescribing Information. Woburn, MA: Anika Therapeutics, Inc.; June 2005. Received from distributor, DePuy Synthes Mitek Sports Medicine, April 21, 2017.
6. Supartz FX Prescribing Information. Durham, NC: Bioventus, LLC; April 2015. Available at http://www.supartzfx.com/wp-content/uploads/2015/07/SUPARTZ_FX_Package_Insert.pdf. Accessed January 28, 2018.
7. Synvisc Prescribing Information. Ridgefield, NJ: Genzyme Biosurgery; September 2014. Available at <http://products.sanofi.us/synvisc/synvisc.html>. Accessed January 28, 2018.
8. Synvisc One Prescribing Information. Ridgefield, NJ: Genzyme Biosurgery; September 2014. Available at <http://products.sanofi.us/synviscone/synviscone.html>. Accessed January 28, 2018.
9. Hymovis Prescribing Information. Parsippany, NJ: Fidia Pharma USA, Inc.; October 2015. Available at <http://www.hymovis.com/>. Accessed January 28, 2018.
10. GenVisc 850 Prescribing Information. Doylestown, PA: Orthogen Rx, Inc.; Available at <http://genvisc850.com/images/genvisc-850-full-prescribing-information.pdf>. Accessed January 28, 2018.
11. Gelsyn-3 Prescribing Information. Durham, NC: Bioventus LLC; 2016. Available at

- <https://www.gelsyn3.com/>. Accessed April 21, 2017.
12. Durolane Prescribing Information. Durham, NC: Bioventus LLC; September 2017. Available at www.durolane.com. Accessed March 9, 2018.
 13. Strand V, Baraf HS, Lavin PT, et al. Effectiveness and safety of a multicenter extension and retreatment trial of Gel-200 in patients with knee osteoarthritis. *Cartilage*. 2012;3(4):297-304.
 14. Sun SF, Hsu CW, Hwang CW, et al. Hyaluronate improves pain, physical function and balance in the geriatric osteoarthritic knee: A 6-month follow-up study using clinical tests. *Osteoarthritis Cartilage*. 2006;14:696-701.
 15. Brown GA. American Academy of Orthopaedic Surgeons clinical practice guidelines: Treatment of osteoarthritis of the knee: Evidence-based guideline, 2nd edition. *J Am Acad Orthop Surg*. September 2013;21(9):577-9. doi: 10.5435/JAAOS-21-09-577.
 16. American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis Care Res*. 2012;64(4):465-474.
 17. Bannuru RR, Osani M, Vaysbrot EE, McAlindon TE. Comparative safety profile of hyaluronic acid products for knee osteoarthritis: a systematic review and network meta-analysis. *Osteoarthritis Cartilage*. August 2, 2016. pii: S1063-4584(16)30196-0. doi: 10.1016/j.joca.2016.07.010. [Epub ahead of print]
 18. Rannou F, Peletier JP, Martel-Pelletier J. Efficacy and safety of topical NSAIDs in the management of osteoarthritis: Evidence from real-life setting trials and surveys. *Semin Arthritis Rheum*. 2016; 45:S18-S21.
 19. McAlindon TE, Bannuru RR, Sullivan MC, et al. OARSI guidelines for the non-surgical management of knee osteoarthritis. *Osteoarthritis Cartilage*. 2014; 22:363-388.
 20. Nelson AE, Allen KD, Golightly YM, et al. A systematic review of recommendations and guidelines for the management of osteoarthritis: The chronic osteoarthritis management initiative of the U.S. Bone and Joint Initiative. *Semin Arthritis Rheum*. 2014; 43:701-712.
 21. Clinical Pharmacology [database online]. Tampa, FL: Gold Standard, Inc.; 2018. Available at: <http://www.clinicalpharmacology-ip.com/>.
 22. Kort NP, Bemelmans YFL, Hugo M, et al. Patient selection criteria for outpatient joint arthroplasty. *Knee Surg Sports Traumatol Arthrosc*. 2017;25:2668-2675.
 23. McGrory BJ, Weber KL, Jevsevar DS, Sevarino K. Surgical management of osteoarthritis of the knee: evidence-based guideline. *Journal of the American Academy of Orthopaedic Surgeons* 2016; 24(8): e87-e93.
 24. DeGroot H, Uzunishvili S, Weir R et al. Intra-articular injection of hyaluronic acid is not superior to saline solution injection for ankle arthritis: a randomized, double-blind, placebo-controlled study. *J Bone Joint Surg* 2012; 94(1):2-8.
 25. Migliore A, Giovannangeli F, Bizzi E et al. Viscosupplementation in the management of ankle osteoarthritis: a review. *Arch Orthop Trauma Surg* 2011; 131(1):139-47.
 26. Richette P, Ravaud P, Conrozier T, et al. Effect of hyaluronic acid in symptomatic hip osteoarthritis: a multicenter, randomized, placebo-controlled trial. *Arthritis Rheum*. 2009;60(3):824-30.

Coding Implications –

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-

date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

| HCPCS Codes | Description |
|-------------|---|
| J7320 | Hyaluronan or derivative, GenVisc 850, for intra-articular injection, 1 mg |
| J7321 | Hyaluronan or derivative, Hyalgan or Supartz, 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, Gel-Syn, for intra-articular injection, 0.1 mg |

| Reviews, Revisions, and Approvals | Date | P&T Approval Date |
|---|-------|-------------------|
| Updated Appendix C for duplicative language | 01.14 | 02.14 |
| Removed requirement for enteric coated formulations Added requirement to fail physical therapy, Monovisc and Gel-One to available therapies Changed approval of Gel-One every 13 weeks and other products every 6 months Added need to document interference with ADLs, failure of tramadol Specialist reviewed | 01.15 | 02.15 |
| Removed limit of two injections Converted to bullet points and new template Removed max dosing of APAP and NSAIDs appendix Combined all safety related appendices into one appendix | 08.15 | 10.15 |
| Converted policy to new template. Added two new products approved in 2015: Hymovis and GenVisc850. Approval duration edited to one treatment course every 6 months rather than every 13 weeks. Removed “interference with ADLs” requirement. Edited step therapy to require an inadequate response to all of the following drugs: a two-week trial of oral NSAIDs if <75 years of age or unable to use oral NSAID, topical NSAID for ≥ 2 weeks, tramadol if no opioid abuse or dependence. Removed acetaminophen requirement. | 09.16 | 10.16 |
| Converted to new template. Added Gelsyn-3 to available therapies and prescriber specialty. Modified tramadol requirement to exclude members currently receiving an opioid analgesic | 04.17 | |

| Reviews, Revisions, and Approvals | Date | P&T Approval Date |
|--|----------|-------------------|
| Removed requirements related to contraindications and hypersensitivity to hyaluronate preparations (initial) and reasons to discontinue (re-auth) per new safety approach/template update; HCPCS codes added. Specialist reviewed. | | |
| Tramadol trial removed. Failure of glucocorticoid injections changed to partial response requirement. | 08.17 | 08.17 |
| 2Q 2018 annual review: policies combined for commercial and Medicaid lines of business; added HIM-medical benefit; Commercial: modified failure of glucocorticoid injections to partial response requirement; Commercial and Medicaid: modified NSAID trial duration to 4 weeks, added requirement that member must not have coexistent active inflammatory arthritis other than OA or history of total knee arthroplasty in the targeted knee; added Durolane; references reviewed and updated. | 03.06.18 | 05.18 |

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. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan

retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. 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. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

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Note:

For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

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