Utilization Review Policy 272A

POLICY: Hyaluronic Acid Derivatives Intraarticular Utilization Management Medical Policy

- Durolane® (sodium hyaluronate injection – Bioventus)
- Gel-One® (sodium hyaluronate injection – Seikagaku Corporation/Zimmer)
- Gelsyn-3™ (sodium hyaluronate injection – IBSA)
- GenVisc® 850 (sodium hyaluronate injection – OrthogenRx)
- Hyalgan® (sodium hyaluronate injection – Fidia Pharma)
- Hymovis® (high molecular weight viscoelastic hyaluronan injection – Fidia Pharma USA)
- Monovisc™ (high molecular weight hyaluronan injection – DePuy Mitek/Johnson & Johnson)
- Orthovisc® (high molecular weight hyaluronan injection – DePuy Mitek/Johnson & Johnson)
- Supartz FX™ (sodium hyaluronate injection – Smith & Nephew)
- Sodium hyaluronate 1% injection – Teva
- SynoJoynt™ (sodium hyaluronate injection – Arthrex)
- Triluron™ (sodium hyaluronate injection – Fidia Pharma)
- TriVisc™ (sodium hyaluronate injection – OrthogenRx)
- Visco-3™ (sodium hyaluronate injection – Seikagaku Corporation/Bioventus)

EFFECTIVE DATE: 1/1/2022
LAST REVIEW DATE: 09/16/2024

COVERAGE CRITERIA FOR: UCare Medical Assistance and Exchange Plans Only (PMAP, Connect, MSC+, MnCare, all Individual and Family Plans)

OVERVIEW

Hyaluronic acid derivatives are indicated for the treatment of pain related to knee osteoarthritis in patients who have failed to respond adequately to conservative nonpharmacologic therapy and to simple analgesics (e.g., acetaminophen).[1-16] The use of intraarticular injections are to restore the normal properties (viscosity and elasticity) of the synovial fluid. Gel-One, Hyalgan, Supartz FX, Synvisc/Synvisc-One, Triluron, and Visco-3 are derived from rooster or chicken combs. The remaining products are derived from non-avian sources and may be useful for patients with allergies to eggs or poultry products. GenVisc 850 has data to support similarity to Supartz FX.[9] All of the products given as a series of five injections (GenVisc 850, Hyalgan, and Supartz FX) have a corresponding product that is equivalent to three injections (TriVisc, Triluron, and Visco-3, respectively). Although retreatment data are limited, all of these products have data concerning efficacy and/or safety of repeat courses. In many cases, at least 6 months was required or a minimum of 6 months had elapsed prior to injection of a repeat course.

Guidelines

Guidelines for the medical management of osteoarthritis of the hand, hip, and knee are available from the American College of Rheumatology (2019).[17] Multiple non-pharmacological modalities are recommended for knee osteoarthritis, including exercise, self-management programs, weight loss, Tai Chi, and use of assistive devices (i.e., bracing or a cane). Pharmacologic therapy for knee osteoarthritis consists of

acetaminophen, oral and topical non-steroidal anti-inflammatory drugs (NSAIDs), tramadol, intraarticular corticosteroid injections, duloxetine, and topical capsaicin. There is limited evidence establishing a benefit of hyaluronic acid intraarticular injections, which contributes to the conditional recommendation against use in knee osteoarthritis. However, when other alternatives have been exhausted or have failed to provide satisfactory benefit, use of intraarticular hyaluronic acid injections may be viewed more favorably than offering no intervention. In the guidelines, no distinction is made between the available intraarticular hyaluronic acid products or between products with various molecular weights.

The Osteoarthritis Research Society International also has guidelines for knee osteoarthritis (2019).[19] These guidelines note that use of intraarticular hyaluronic acid injections are conditionally recommended for patients with knee osteoarthritis. The guidelines comment on the long-term treatment effect with intraarticular hyaluronic acid injections which is associated with symptom improvement beyond 12 weeks and a move favorable safety profile than intraarticular corticosteroid injections.

POLICY STATEMENT

Prior authorization is recommended for medical benefit coverage of hyaluronic acid derivatives indicated for knee OA. Approval is recommended for those who meet the **Criteria** and **Dosing** for the listed indication. Extended approvals are allowed if the patient continues to meet the Criteria and Dosing. Because of the of the specialized skills required for evaluation and diagnosis of patients treated with hyaluronic acid derivative intraarticular products as well as the specialized administration technique, these products are required to be administered by or under the supervision of a physician specializing in rheumatology, orthopedic surgery, or physical medicine and rehabilitation (physiatrist). Previous therapy is required to be verified by a clinician in the Coverage Review Department when noted in the criteria as **[verification of therapies required].** All approvals for initial therapy are provided for the number of injections noted below.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of hyaluronic acid derivatives is recommended for requests meeting both the preferred product step therapy requirements and indication requirements.

Preferred Product Step Therapy Requirements (New Starts Only)

Criteria. *The patient must meet the following criteria (A or B):*

A) For patients new to Durolane, Gel-One, Gelsyn-3, GenVisc 850, Hyalgan, Hymovis, Monovisc, Orthovisc, Supartz FX, Sodium hyaluronate injection, Triluron, SynoJoynt, TriVisc, Visco-3 therapy only, must have a trial of at least one course of Euflexxa. Synvisc, or Synvisc One prior to approval of Durolane, Gel-One, Gelsyn-3, GenVisc 850, Hyalgan, Hymovis, Monovisc, Orthovisc, Supartz FX, Sodium hyaluronate injection, SynoJoynt, Triluron, TriVisc, Visco-3. New starts to therapy defined as no use of Durolane, Gel-One, Gelsyn-3, GenVisc 850, Hyalgan, Hymovis, Monovisc, Orthovisc, Supartz FX, Sodium hyaluronate injection, SynoJoynt, Triluron, TriVisc, Visco-3 within the past 180 days for Medicaid and Commercial patients.

B) Patient has a contraindication or other clinical reason why Euflexxa, Synvisc, or Synvisc One cannot be tried before Durolane, Gel-One, Gelsyn-3, GenVisc 850, Hyalgan, Hymovis, Monovisc, Orthovisc, Supartz FX, Sodium hyaluronate injection, SynoJoynt, Triluron, TriVisc, Visco-3.

Note: Step therapy only required for indications FDA-Approved for both Durolane, Gel-One, Gelsyn-3, GenVisc 850, Hyalgan, Hymovis, Monovisc, Orthovisc, Supartz FX, Sodium hyaluronate injection, SynoJoynt, Triluron, TriVisc, or Visco-3 and the preferred product(s).

FDA-Approved Indications

1. **Osteoarthritis of the Knee**. Approve one course of therapy per treated knee if the patient meets ONE of the following conditions (A or B):
   - **A)** Initial Therapy. Approve an initial course if the patient meets ALL of the following conditions (i, ii, and iii):
     - **i.** Diagnosis of the knee to be treated is confirmed by radiologic evidence of knee osteoarthritis; AND
       Note: Examples of radiographic evidence includes x-ray, magnetic resonance imaging (MRI), computed tomography (CT) scan, ultrasound.
     - **ii.** Patient has tried at least TWO of the following three modalities of therapy for osteoarthritis (i, ii, iii):
       - **a)** At least one course of physical therapy for knee osteoarthritis;
       - **b)** At least TWO of the following pharmacologic therapies [(1), (2), (3), (4)] **[verification of therapies required]**:
         - **(1)** Oral or topical nonsteroidal anti-inflammatory drug(s) [NSAID(s)];
           Note: Examples of oral NSAIDs include naproxen, ibuprofen, celecoxib. Examples of topical NSAIDs include diclofenac solution or diclofenac gel. A trial of two or more NSAIDs (oral and/or topical) counts as one pharmacologic therapy.
         - **(2)** Acetaminophen;
         - **(3)** Tramadol (Ultram®/XR, generics);
         - **(4)** Duloxetine (Cymbalta®, generics);
       - **c)** At least TWO injections of intraarticular corticosteroids to the affected knee; AND
     - **iii.** The product is administered by or under the supervision of a physician specializing in rheumatology, orthopedic surgery, or physical medicine and rehabilitation (physiatrist).
   - **B)** Patient has Already Received One or More Courses of a Hyaluronic Acid Derivative in the Same Knee. Approve one repeat course if the patient meets ALL of the following conditions (i, ii, and iii):
     - **i.** At least 6 months have elapsed since the last injection with any hyaluronic acid derivative; AND
     - **ii.** According to the prescriber, the patient had a response to the previous course of hyaluronic acid derivative therapy for osteoarthritis of the knee and now requires additional therapy for osteoarthritis symptoms; AND
       Note: Examples of a response include reduced joint pain, tenderness, or morning stiffness, improved mobility.
     - **iii.** The product is administered by or under the supervision of a physician specializing in rheumatology, orthopedic surgery, or physical medicine and rehabilitation (physiatrist).

   Dosing. Approve the following dosing regimens:
   - **A) Durolane, Gel-One, Monovisc:** Approve one injection.
   - **B) Hymovisc:** Approve up to two injections given 1 week apart.
   - **C) Gelsyn-3, sodium hyaluronate 1% injection, SynoJoynt, Triluron, TriVisc, Visco-3:** Approve up to three injections given 1 week apart.
   - **D) Orthovisc:** Approve up to 4 injections given 1 week apart.
   - **E) GenVisc 850, Hyalgan, Supartz FX:** Approve up to 5 injections given 1 week apart.

   Note: Dose listed is for one knee. If two knees are being treated, then each knee requires a syringe or vial of product

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of hyaluronic acid derivatives is not recommended in the following situations:

1. **Acute Ankle Sprain.** A randomized, controlled, prospective trial was conducted which assessed the use of intraarticular hyaluronic acid in acute ankle sprains.[20-21] Patients treated with intraarticular hyaluronic acid (n = 79) within 48 hours of injury and again on Day 4 reported a time to pain-free and disability-free return to sport of 11 days (± 8 days) compared with 17 days (± 8 days) for placebo ($P < 0.05$).[18] All patients were also treated with standard of care (rest, ice, compression, and elevation [RICE]). At 24 months, the placebo group experienced an increase in repeat sprains when compared with those treated with HA (21 recurrent ankle sprains in the placebo group compared with 7 recurrent ankle sprains in the intraarticular hyaluronic acid treatment group [$P < 0.001$]) as well as a significant difference in missed days from participation in sport activity (49 days vs. 12 days for the placebo and HA groups, respectively; $P < 0.001$).[21] More data are needed to determine the role of intraarticular hyaluronic acid products in the treatment of acute ankle sprains.

2. **Osteoarthritis (OA) and Other Pathologic Conditions Involving Joints Other than the Knee** (e.g., hand, hip, ankle, shoulder OA, temporomandibular joint [TMJ], adhesive capsulitis of the shoulder, subacromial impingement). The prescribing information for these agents state in the precautions section that the safety and effectiveness of hyaluronic acid derivatives injections into joints other than the knee have not been established.[1-16] Due to the absence of evidence to support use of intraarticular hyaluronic acid and potential for harm, the guidelines for the management of hand, hip, and knee OA by American College of Rheumatology (2019) do not recommend use of hyaluronic acid derivatives in patients with hand or hip OA.[17] Small trials have also investigated intraarticular hyaluronic acid in other joints, including ankle OA and hip OA.[23-38] More data are needed to determine if there is a role for intraarticular hyaluronic acid for the treatment of OA involving other joints. A small trial (n = 70) found that intraarticular hyaluronic acid did not result in increased benefit for adhesive capsulitis of the shoulder (also known as frozen shoulder) in patients who were already receiving physical therapy.[39] Another small study (n = 159) did not show benefit of intraarticular hyaluronic acid over corticosteroid or placebo injections in patients with subacromial impingement.[40]

3. **Pathologic Conditions of the Knee Other than Osteoarthritis** (e.g., chondromalacia patellae, osteochondritis dissecans, patellofemoral syndrome, post-anterior cruciate ligament [ACL] reconstruction). Intraarticular hyaluronic acid derivatives are indicated in knee osteoarthritis.[1-16] Adequate, well-designed trials have not clearly established the use of these products in other conditions of the knee.[41-42]

4. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

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HISTORY

Type of Revision	Summary of Changes	Review Date
Early annual revision	Add TriVisc and Visco-3 to the policy with the same criteria as other agents. Approval is for one course (3 injections).	02/07/2018
Early annual revision	Add Synojoynt to the policy with the same criteria as other agents. Approval is for one course (3 injections).	10/31/2018
Early annual revision	Throughout the policy, replace reference to Synojoynt with sodium hyaluronate 1% (aligns with how product is marketed in the US). Remove Supartz from the policy (obsolete). **Osteoarthritis of the Knee**: For products given as a series of injections, update approval language to say that approval is for "up to" the maximum number of injections per course.	07/31/2019
Annual revision	**Osteoarthritis of the Knee**: Examples of radiographic evidence, non-steroidal anti-inflammatory drugs, and response to therapy were moved to notes in the criteria (previously listed as examples within the criteria). For the criteria applying to patients previously treated who have responded to therapy, wording was updated to more generally allow this determination by the prescriber (criteria previously specified this was according to the prescribing physician).	08/26/2020
Annual Revision	No criteria changes.	09/01/2021
Selected Revision	SynoJoynt was added to the policy. Criteria for dosing approves for up to three injections given 1 week apart.	07/27/2022
Annual Revision	No criteria changes.	09/27/2023
UCare P&T Review	Policy reviewed and approved by UCare P&T committee. Annual review process	09/16/2024
UCare P&T Review	Policy reviewed and approved by UCare P&T committee. Annual review process	09/15/2025