VENTURA COUNTY
HEALTH CARE PLAN

UTILIZATION MANAGEMENT MEDICAL POLICY

POLICY: Hyaluronic Acid Derivatives (Intraarticular) Utilization Management Medical Policy

- Durolane® (sodium hyaluronate injection – Bioventus)
- Euflexxa® (sodium hyaluronate injection – Ferring)
- Gel-One® (sodium hyaluronate injection – Seikagaku/Zimmer)
- Gelsyn-3™ (sodium hyaluronate injection – Bioventus)
- GenVisc® 850 (sodium hyaluronate injection – OrthogenRx)
- Hyalgan® (sodium hyaluronate injection – Fidia/Sanofi)
- Hymovis® (high molecular weight viscoelastic hyaluronan injection – Fidia)
- Monovisc™ (high molecular weight hyaluronan injection – Anika)
- Orthovisc® (high molecular weight hyaluronan injection –Anika)
- Supartz FX™ (sodium hyaluronate injection – Seikagaku/Bioventus)
- Sodium hyaluronate 1% injection – Teva
- SynoJoynt™ (sodium hyaluronate injection – Arthrex)
- Synvisc® (hylan G-F 20 sodium hyaluronate injection – Genzyme/Sanofi)
- Synvisc-One® (hylan G-F 20 sodium hyaluronate injection – Genzyme/Sanofi)
- Triluron™ (sodium hyaluronate injection – Fidia)
- TriVisc™ (sodium hyaluronate injection – OrthogenRx)
- Visco-3™ (sodium hyaluronate injection – Seikagaku/Zimmer)

REVIEW DATE: 10/09/2024

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).[1-16,43]

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] 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.

Table 1. Number of Injections per Course of Therapy for Intraarticular Hyaluronic Acid Derivatives.[1-16,43*]

Product	Number of injections per course
Durolane, Gel-One, Monovisc, Synvisc-One	One injection given one time
Hymovis	Two injections given 1 week apart
Euflexxa, Gelsyn-3, Sodium Hyaluronate, SynoJoynt, Synvisc, Triluron, TriVisc, Visco-3	Three injections given 1 week apart
Orthovisc	Three or four injections given 1 week apart
GenVisc 850, Hyalgan, Supartz FX	Five injections given 1 week apart

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

Guidelines

Guidelines for the management of osteoarthritis of the hand, hip, and knee are available from the **American College of Rheumatology** (2019).[17] 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 more favorable safety profile than intraarticular corticosteroid injections.

POLICY STATEMENT

Prior Authorization is recommended for medical benefit coverage of hyaluronic acid derivative intraarticular products indicated for knee osteoarthritis. 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. Requests for doses outside of the established dosing documented in this policy will be considered on a case-by-case basis by a clinician (i.e., Medical Director or Pharmacist). All approvals are provided for the number of injections noted below. Because 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, approval requires these products 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].**

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of hyaluronic acid derivative intraarticular products is recommended in those who meet the following criteria:

FDA-Approved Indication

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1. **Osteoarthritis of the Knee**. Approve one course of therapy per treated knee if the patient meets ONE of the following (A or B):
   - **A)** Initial Therapy. Approve an initial course if the patient meets ALL of the following (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 modalities of therapy for osteoarthritis (a, b, or c):
       - **a)** At least one course of physical therapy for knee osteoarthritis; OR

b) At least TWO of the following pharmacologic therapies [(1), (2), (3), or (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, generic);
- **(4)** Duloxetine (Cymbalta, generic);OR

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 (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, morning stiffness, or 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 ONE of the following dosing regimens (A, B, C, D, or E):
Note: Dose listed is for one knee. If two knees are being treated, then each knee requires a syringe or vial of product.

A) Durolane, Gel-One, Monovisc, Synvisc-One: Approve one injection.
B) Hymovisc: Approve up to two injections given 1 week apart.
C) Euflexxa, Gelsyn-3, sodium hyaluronate 1% injection, SynoJoynt, Synvisc, 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.

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 ($P < 0.05$). All patients were also treated with standard of care (rest, ice, compression, and elevation). At 24 months, the placebo group experienced an increase in repeat sprains when compared with those treated with an intraarticular hyaluronic acid product (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 hyaluronic acid 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 and Other Pathologic Conditions Involving Joints Other than the Knee** (e.g., hand, hip, ankle, shoulder osteoarthritis, 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 osteoarthritis by American College of Rheumatology (2019) do not recommend use of intraarticular hyaluronic acid in patients with hand or hip osteoarthritis.[17] Small trials have also investigated intraarticular hyaluronic acid in other joints, including ankle osteoarthritis and hip osteoarthritis.[23-38] More data are needed to determine if there is a role for intraarticular hyaluronic acid for the treatment of osteoarthritis 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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5. GenVisc® 850 intraarticular injection [prescribing information]. Doylestown, PA: OrthogenRx; not dated.
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HISTORY

Type of Revision	Summary of Changes	Review Date
Annual Revision	No criteria changes.	09/27/2023
Annual Revision	No criteria changes.	10/09/2024