Intra Articular Hyaluronan Injections for Treatment of Osteoarthritis of the Knee

**Description of Procedure or Service**

Intra-articular injection of hyaluronan (HA) into osteoarthritic joints is thought to replace endogenous HA, restore the viscoelastic properties of the synovial fluid, and improve pain and function. The majority of studies to date have assessed HA injections for knee osteoarthritis, and this is the U.S. Food and Drug Administration (FDA) approved indication. Other joints, such as the hip and shoulder, are currently being investigated for intra-articular HA treatment of osteoarthritis (OA).

Hyaluronan (HA), also known as hyaluronate or hyaluronic acid, is a naturally occurring macromolecule that is a major component of synovial fluid and is thought to contribute to its viscoelastic properties. Chemical crosslinking of hyaluronan increases its molecular weight; crosslinked hyaluronans are referred to as hylans. In osteoarthritis, the overall length of HA chains present in cartilage and the HA concentration in the synovial fluid are decreased. Intra-articular injection of HA (IAHA) has been proposed as a means of restoring the normal viscoelasticity of the synovial fluid in patients with osteoarthritis. This treatment has been called viscosupplementation. Currently, no curative therapy is available for OA, and thus the overall goals of management are to reduce pain, disability, and the need for surgery.

The FDA has not approved intra-articular hyaluronan for joints other than the knee.

***Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

**Policy**

BCBSNC will provide coverage for intra-articular hyaluronan injections when it is determined to be medically necessary because the medical criteria and guidelines noted below are met and a preferred product is used. Preferred products include Durolane®, Gelsyn-3™ and Synvise/Synvise-One®.

**Benefits Application**

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

**When Intra Articular Hyaluronan Injections are covered**

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Intra-articular hyaluronan injections may be considered medically necessary for the treatment of pain in osteoarthritis of the knee when the following criteria are met:

1. The patient has tried and failed or has a clinical contraindication/intolerance to Synvisc/Synvisc-One® and Durolane®/Gelsyn-3™; AND
2. The patient is not scheduled to undergo a total knee replacement within 6 months of starting therapy; AND
3. Conservative therapy consisting of exercise, physical therapy or weight loss, and pharmacologic therapy consisting of analgesics and non-steroidal anti-inflammatory drugs (NSAIDs) has failed to provide functional improvement after at least 3 months, or the individual is unable to tolerate conservative therapy; AND
4. The patient has at least one of the following:
   a. Evidence of joint space narrowing, subchondral sclerosis, osteophytes, and subchondral cysts present on radiographs; OR
   b. Knee pain accompanied by at least 5 of the following:
      i. Crepitus
      ii. Erythrocyte sedimentation rate (ESR) less than 40 mm/hr
      iii. Bony enlargement
      iv. Bony tenderness
      v. Less than 30 minutes of morning stiffness
      vi. No palpable warmth of synovium
      vii. Over 50 years of age
      viii. Rheumatoid factor less than 1:40 titer (agglutination method)
      ix. Synovial fluid signs (clear fluid of normal viscosity and white blood cells less than 2000/mm³)

Additional treatment series of intra articular hyaluronan injections may be considered medically necessary when the following criteria are met:

- Initial criteria for use of intra-articular hyaluronan injections were met, AND
- Medical record documentation shows a reduction in the dose of analgesics/anti-inflammatory medication and significant improvement in pain and functional capacity following the previous series of injections, AND
- At least 6 months have lapsed since the completion of the prior treatment course.

**When Intra Articular Hyaluronan Injections are not covered**

The use of intra-articular hyaluronan injections in the knee is not covered when the above criteria are not met.

Intra-articular injections in joints other than the knee and for indications outside of osteoarthritis of the knee are considered investigational.

**Policy Guidelines**

In 2013, the guidelines from the American Academy of Orthopaedic Surgeons (AAOS) on treatment of osteoarthritis of the knee indicated that AAOS could not recommend using intra-articular hyaluronic acid for patients with symptomatic osteoarthritis of the knee. This recommendation was strong, meaning that the quality of the supporting evidence was high. It was based on a meta-analysis of 3 high-strength and 11 moderate-strength studies that showed the overall effect was less than 0.5 minimally important different units, indicating a low likelihood that an appreciable number of patients achieved clinically important benefits. The AAOS indicated that practitioners should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present. These guidelines replaced 2008 guidelines, which included a statement that a recommendation could not be made for intra-articular hyaluronan due to inconclusive evidence. In 2017, the AAOS clinical practice guidelines on hip osteoarthritis included a
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recommendation that intra-articular hyaluronic acid could not be recommended in patients with symptomatic hip osteoarthritis, because it was not better than a placebo. This was based on strong evidence as assessed in eight high-quality studies that evaluated intra-articular hyaluronan against corticosteroids and placebo. Several studies showed no difference in patient pain and function after treatment with intra-articular hyaluronan against placebo. Studies reviewing different formulations of intra-articular hyaluronan were also considered.

In 2019, the American College of Rheumatology updated its guidelines on osteoarthritis of the hand, hip, and knee. A conditional recommendation against the use of intra-articular hyaluronic acid was given for the treatment of osteoarthritis of the knee and first carpometacarpal joint of the hand. The College also made a strong recommendation against the use of intra-articular hyaluronic acid for the treatment of osteoarthritis of the hip. These recommendations were informed by a review indicating that the effect size of hyaluronic acid injections compared to saline injections approaches zero when analysis is limited to trials with low risk of bias. While the evidence of lack of benefit is higher quality for the hip, the conditional recommendation for osteoarthritis of the knee and hand was made in the context of clinical shared decision-making that recognizes the treatment may provide benefit when alternatives have failed to provide benefit and have been exhausted.

For individuals who have osteoarthritis of joints other than the knee who receive intra-articular hyaluronan injections, the evidence includes RCTs, systematic reviews of RCTs, and observational studies. Relevant outcomes are symptoms, functional outcomes, and treatment-related morbidity. Meta-analyses of RCTs either have not found statistically significant benefits of the procedure on health outcomes or have found benefits that were statistically, but likely not clinically, significant (eg, 0.27-point improvement on a 10-point visual analog scale for hip osteoarthritis). The evidence is insufficient to determine the effects of the technology on health outcomes.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: J7318, J7320, J7321, J7322, J7323, J7324, J7325, J7326, J7327, J7328, J7329, J7331, J7332, J3490

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| J7333 | Visco-3 | 1 | 3 |

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

**Scientific Background and Reference Sources**

MEDLINE search January 1996 through December 1997

USPDI

Consultant Review, March 1997


Medical Policy Advisory Group, 12/2/1999


BCBSA Medical Policy Reference Manual 5/31/01; 2.01.31


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Specialty Matched Consultant Advisory Panel review 7/2010


Specialty Matched Consultant Advisory Panel review 7/2011

American College of Rheumatology Subcommittee on Osteoarthritis Guidelines. Recommendations
Intra Articular Hyaluronan Injections for Treatment of Osteoarthritis of the Knee


Specialty Matched Consultant Advisory Panel review 7/2012

Specialty Matched Consultant Advisory Panel review 7/2013
Medical Director review 7/2013

Medical Director review 10/2013

U.S. Food and Drug Administration (FDA). PMA approval for Monovisc™ (Anika Therapeutics, Inc.) http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DeviceApprovalsandClearances/Recently-ApprovedDevices/ucm388319.htm
Specialty Matched Consultant Advisory Panel review 7/2014
Medical Director review 7/2014

Specialty Matched Consultant Advisory Panel review 6/2015


Specialty Matched Consultant Advisory Panel 6/2017

Specialty Matched Consultant Advisory Panel 6/2018
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Policy Implementation/Update Information

12/97 Original policy developed. Reviewed by the Plan’s Medical Director and determined investigational.

3/98 Reviewed: Continues to appear investigational due to approval as device and no long term outcomes.

6/98 Reviewed: Medical Policy Advisory Group recommends approval of one time treatment cycle for individuals with osteoarthritis of the knee who have failed to respond to conservative therapy. Policy name changed from Sodium Hyaluronate.


6/99 Reformatted, Description of Procedure or Service changed, Medical Term Definitions added.

12/99 Reaffirmed, Medical Policy Advisory Group

10/00 Revised. Changed the indications to include repeat treatment cycles when specific criteria are met. Added comment that treatment cycles should include no more than 3 injections for Synvisc and 5 injections for Hyalgan. System coding changes. Medical Policy Advisory Group - Approved.

5/01 Changes in formatting.


3/25/04 Added code J7317 to the Billing/Coding section. Removed code Q3030 from the Billing/Coding section. Benefits Application and Billing/Coding sections updated for consistency.

8/12/04 Specialty Matched Consultant Advisory panel review 07/15/2004 with no changes made to policy criteria. References added. Statement added, "e.g., rest, anti-inflammatory medications, physical therapy" to define conservative measures.

9/9/04 Title changed from "Intra Articular Hyaluronan Injections for Treatment of Osteoarthritis of the Knee." to "Intra Articular Hyaluronan Injections for Osteoarthritis of the Knee" for purpose of reducing characters.

1/05/06 Added policy number to Key Words. CPT Code J7318 added to Billing/Coding section.

2/16/06 Deleted code J7318 from Billing/Coding section. This code was never made valid by Centers for Medicare & Medicaid Services (CMS).

3/2/06 Statement regarding documentation of conservative therapy moved from Billing/Coding section to section "When Intra-articular Hyaluronan Injections are covered." Statement regarding allergies to chickens or eggs deleted from the "not covered" section. Information
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regarding Euflexxa added to "Policy Guidelines" section. Euflexxa is free of animal proteins and can be administered to patients who are allergic to chickens, eggs or feathers.

8/21/06 References updated. Specialty Matched Consultant Advisory panel review 7/24/06. No changes to policy criteria. (adn)

9/18/06 Information regarding repeated treatment cycles deleted from the When Covered section. The following statement added to When Not Covered section: "Repeated treatment cycles are considered investigational." Also added a statement to Policy Guidelines section "There is limited evidence regarding the effectiveness of multiple courses of intra-articular hyaluronan injections, therefore repeated treatment cycles are considered investigational. BCBSNC does not provide coverage for investigational services." Notification date 9/18/06. Effective date 11/27/06. (adn)

2/12/07 Billing/Coding section updated to reflect 2007 code changes. (adn)

6/18/07 Code J7319 removed from policy. No longer a valid code.

12/31/07 Coding update. Deleted codes Q4083, Q4084, Q4085 and Q4086. Added codes J7321, J7322, J7323 and J7324 to Billing/Coding section. (adn)

2/11/08 Reformatted the When Covered section into a numbered list and added the following statement: "Repeated courses of intra-articular hyaluronan injections may be considered medically necessary under the following conditions: Significant pain relief was achieved with the prior course of injections; and at least six months have passed since the prior course." The statement regarding repeated treatment cycles was deleted from the Not Covered section. Rationale regarding repeated treatment cycles and use of hyaluronan on joints other than the knee added to the Policy Guidelines section. (adn)

8/25/08 Item A.1. in the When Covered section revised to read: Diagnosis of osteoarthritis substantiated by x-ray or other imaging or arthroscopic findings. References updated. Specialty Matched Consultant Advisory Panel review 6/17/08. No change to policy statement. (adn)

3/2/09 Description section revised for clarity. Medical Policy changed to Evidence Based Guideline.

1/5/10 HCPCS Code J7322 replaced with Code J7325.


4/26/11 References updated. No changes to guideline statements. (mco)

8/16/11 Specialty Matched Consultant Advisory Panel review. No changes to guideline statements. (mco)

12/30/11 New code J7326 added to “Billing/Coding” section. Effective date 1/1/2012. (mco)

5/1/12 Description section updated. “Not Recommended” section updated. References updated. Medical Director review 4/2012. (mco)

8/7/12 Specialty Matched Consultant Advisory Panel review. No changes to Guideline Statements. (mco)

4/16/13 Description section updated. References updated. (mco)

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10/15/13  Evidence Based Guideline converted to Corporate Medical Policy. Description section revised. Information regarding preferred medications Euflexxa® and Synvisc/Synvisc One®, added to Policy Statement. “When Covered” section revised as follows: “Euflexxa® and Synvisc/Synvisc One® injections may be considered medically necessary for the treatment of pain in osteoarthritis of the knee when conservative treatment has failed. Non-preferred intra-articular hyaluronan injections may be covered if the patient has previously used at least one of the preferred drugs as indicated above, and such drug has been detrimental to the patient’s health or has been ineffective in treating the patient’s condition.” “When not Covered” section revised to state: “The use of intra-articular hyaluronan injections in the knee is not covered when the above criteria are not met. Intra-articular injections in joints other than the knee are considered investigational.” Medical Director review. References updated. Notification given 10/15/13 for effective date 12/31/13. (mco)

10/29/13  Added the following statement to the “When Covered” section: “Non-preferred intra-articular hyaluronan injections may be covered if the patient is currently receiving treatment with a non-preferred drug.” Effective date remains 12/31/13. (mco)

4/1/14  References updated to include the U.S. Food and Drug Administration (FDA) PMA approval for Monovisc™ (Anika Therapeutics, Inc.). J3490 added to Billing/Coding section. (mco)
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<td>Policy updated to reflect preferred products: Synvisc, Synvisc-One, Durolane, and Gelsyn-3. Added the following to “When Covered” section: “The patient has tried and failed or has a clinical contraindication/intolerance to Synvisc/Synvisc One® and Durolane / Gelsyn-3TM; AND the patient is not scheduled to undergo a total knee replacement within 6 months of starting therapy.” Additional clarification added to “When Not Covered” section that indications outside of osteoarthritis of the knee are considered investigational. Table added to Billing/Coding section with product specific billing information. Notification given 10/1/18 for effective date 1/1/19. (krc)</td>
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separate Visco-3 as a separate code. Reference added. Specialty Matched Consultant Advisory Panel review 6/17/2020. No change to policy statements. (krc)

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.