

**Washington State Health Care Authority, HTA Program  
Hyaluronic Acid / Viscosupplementation for Knee Osteoarthritis  
Final Key Questions and Background**

**Introduction**

HTA has selected this topic to undergo a health technology assessment where an independent vendor will systematically review the evidence available on the safety, efficacy, and cost-effectiveness. HTA posted the topic and gathered public input about available evidence. HTA is now publishing the Final Key Questions which guide the development of the draft evidence report.

Viscosupplementation, also known as Hyaluronic acid (HA) injection, is a procedure that involves the injection of gel-like substances (hyaluronates) into a joint to supplement the viscous properties of synovial fluid. Specifically, HA is used as an intra-articular treatment for relief of pain, associated with osteoarthritis (OA), with the potential for disease modification through improvement of synovial fluid quality and/or quantity. HA has been approved by the FDA for use in patients with OA of the knee who have not responded to more conservative therapy: exercise, physical therapy, and nonprescription analgesics.

***Hyaluronic Acid Injection/Viscosupplementation for Osteoarthritis of the Knee***

*Patient group:* Adults with osteoarthritis of the knee.

*Intervention(s):* Viscosupplementation (hyaluronic acid injection – Hyalgan, Synvisc, Supartz, Orthovisc, Euflexxa).

*Comparator(s):* NSAIDs, corticosteroid injection, physical therapy, oral pain medications, placebo, arthroscopic lavage and/or debridement.

*Outcome(s):* Pain, function, quality of life, adverse effects, costs

***Key Questions***

1. What is the clinical effectiveness of viscosupplementation for treatment of OA of the knee?
2. What are the adverse effects associated with viscosupplementation in patients with OA of the knee?
3. Does the effectiveness of viscosupplementation vary by subpopulation defined by these factors: age, race/ethnicity, gender, primary versus secondary OA, disease severity and duration, weight (body mass index), and prior treatments?
4. What are the cost implications and cost effectiveness for viscosupplementation of the knee?

*Policy Context:* Important questions associated with the use of HA include: how effective is HA in reducing symptoms associated with OA compared to other presently available treatments; does HA modify disease status in patients with OA; and is HA treatment safe? Given the unclear benefit of Viscosupplementation and the risks and costs, it would be useful to know whether evidence exists regarding the effectiveness of HA. In addition, there are concerns about harms and safety issues that may outweigh the benefits.