Effective Health Care

Viscosupplementation for Osteoarthritis of the Knee Nomination Summary Document

Results of Topic Selection Process & Next Steps

- The effectiveness of viscosupplementation agents was found to be addressed by an existing AHRQ Evidence-based Practice Center (EPC) Program review titled *Treatment of Primary and Secondary Osteoarthritis of the Knee.* Given that the existing report covers this nomination, no further activity will be undertaken on this topic.
  - Samson DJ, Grant MD, Ratko TA, Bonnell CJ, Ziegler KM, Aronson N. Treatment of Primary and Secondary Osteoarthritis of the Knee. Evidence Report/Technology Assessment No. 157 (Prepared by Blue Cross and Blue Shield Association Technology Evaluation Center Evidence-based Practice Center under Contract No. 290-02-0026). AHRQ Publication No. 07-E012. Rockville, MD: Agency for Healthcare Research and Quality. September 2007. http://www.ahrq.gov/downloads/pub/evidence/pdf/oaknee/oaknee.pdf

- The comparative effectiveness of viscosupplementation agents is not feasible for a full systematic review due to the limited data available for a review at this time.

Topic Description

Nominator: Public policy maker/payer

Nomination Summary: The nominator questions the comparative effectiveness of viscosupplementation products for osteoarthritis of the knee. He questions whether each of these products are equally effective and whether one product should be considered over another in certain clinical situations.

Staff-Generated PICO
Population(s): Patients over the age of 50 with grade 1-4 osteoarthritis of the knee who are not candidates for total knee replacement
Intervention(s): Viscosupplementation products (Hyalgan, Synvisc, Supartz, Orthovisc, Euflexxa, Synvisc-One)
Comparator(s): Formulations with different delivery options (5 injections, 3 injections, 1 injection)
Outcome(s): Symptomatic relief of osteoarthritis, delay or elimination of the need for total knee replacement, reduction of the need for oral analgesics, improvements in quality of life

Key Questions from Nominator:
1. Are these products effective?
2. Are all the products equally effective? What is the benefit of one over the other?

3. Should one product be considered over another in certain clinical situations?
4. Which of the three treatment regimens is the most effective? Do they improve quality of care?
5. Are clinicians using one method over another because it is more effective, or because they can have 3 or 5 office visits instead of 1?

Considerations

- The topic meets EHC Program appropriateness and importance criteria. (For more information, see http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.)

- The effectiveness of viscosupplementation agents was found to be addressed by a 2007 ARHQ EPC Program review titled *Treatment of Primary and Secondary Osteoarthritis of the Knee* that addressed the following three treatments: intra-articular injections of viscosupplements; oral glucosamine and chondroitin; and arthroscopic lavage and debridement. Key questions from this report include:
  1. What are the clinical effectiveness and harms of each intervention in patients with primary OA of the knee?
  2. What are the clinical effectiveness and harms of each intervention in patients with secondary OA of the knee?
  3. How do the short-term and long-term outcomes of each intervention differ by the following subpopulations: age, race/ethnicity, gender, primary or secondary OA, disease severity and duration, weight (body mass index), and prior treatments?
  4. How do the short-term and long-term outcomes of each intervention compare for the treatment of primary OA of the knee; and secondary OA of the knee?

- The report found that the existing evidence leaves uncertainty about whether viscosupplementation treatment results in pain relief different than placebo treatment. The report states that more high-quality research is needed before this question can be completely answered.

- Very few studies have compared the effectiveness of different viscosupplementation agents. Therefore, this topic is not feasible for a full systematic review due to the limited data available for a review at this time.