

## Backgrounder: A Cost-Effective Approach To Treating Osteoarthritis (OA)

Statistics regarding the cost of treating arthritis paint a disturbing picture for older Americans. According to the Arthritis Foundation, arthritis and chronic joint problems cost the economy at \$124.8 billion annually, including \$42.6 billion in direct medical expenses and \$82.2 billion in lost productivity.<sup>1</sup>

The cost of treating osteoarthritis (OA), the most common form of arthritis, is especially troubling given that more than 20 million Americans have OA,<sup>2</sup> which is a chronic, painful disease that must be managed for years. For this reason, two of the leading medical organizations that specialize in the treatment of arthritis and joint pain – the American College of Rheumatology and the American Pain Society – have conducted thorough reviews of the scientific literature and have issued guidelines for treating OA. Based on these guidelines, researchers at Harvard Medical School, Boston’s Brigham and Women’s Hospital, then conducted a cost-effectiveness analysis of different strategies for managing OA symptoms. All three studies suggest that people with mild to moderate OA pain can often get the same symptom relief from over-the-counter pain remedies as from expensive prescription arthritis medications and usually with fewer side effects. The following summarizes these research findings and their significance for older Americans.

### **American College of Rheumatology OA Guidelines**

In 1995, the American College of Rheumatology (ACR) published recommendations for the medical management of OA of the hip and knee, which was the first step in addressing the most cost-effective approach to managing OA symptoms. In 2000, ACR updated these guidelines based on new developments in the field. Following the principles of evidence-based medicine, as used in the process of making clinical decisions, these revised guidelines advocate first using non-pharmacological treatments, such as weight loss, aerobic exercise, muscle strengthening and range of motion exercises, physical and occupational therapy, and arthritis self-management programs.

In publishing these guidelines, ACR stated that the goal of contemporary management of OA should be to control the pain and improve mobility and function without the possible toxic effects of certain prescription drugs. For this reason, ACR recommends using over-the-counter pain relievers to manage mild to moderate joint pain, starting with the simple analgesic, acetaminophen. In making this determination, ACR reviewed the findings of clinical trials on the relative efficacy of acetaminophen and non-steroidal anti-inflammatory drugs (NSAIDs), and concluded that acetaminophen is the most cost-effective initial therapy for treating OA because of its low cost, widespread availability,

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<sup>1</sup> Arthritis Care & Research, February 2003.

<sup>2</sup> Arthritis Foundation Facts About OA.

nonprescription status and the fact that the drug is comparable in efficacy to NSAIDs but without the increased risk of GI bleeding and other potential side effects.

### **American Pain Society Guidelines**

Following the release of ACR's guidelines for OA management, in 2002, the American Pain Society (APS) issued separate recommendations for treating the acute and chronic pain associated with arthritis, agreeing on the need to manage joint pain most cost-effectively. In issuing its guidelines, APS noted that the undertreatment of arthritis pain can have serious consequences, such as muscle breakdown and weakness, impaired healing, and impaired respiratory effort, which is why practitioners and patients need guidance on the best approaches to manage joint pain. Accordingly, an interdisciplinary panel of arthritis pain specialists reviewed available scientific evidence and the judgment of pain experts, and agreed on these major recommendations:

- All treatment for arthritis should begin with a comprehensive assessment of pain and function.
- Pain medications are important in managing arthritis symptoms and should be used concurrently with nutritional, physical, and educational interventions.
- Physicians should consider efficacy, adverse side effects, dosing frequency, and cost to the patient when recommending arthritis treatments.
- For mild to moderate arthritis pain, acetaminophen is the drug of choice because of its mild side effects, over-the-counter availability, and low cost.
- In treating moderate to severe arthritis pain, the use of NSAIDs like ibuprofen and naproxyn sodium should be considered only if people are not responding to acetaminophen and the newer prescription COX-2 specific inhibitors, such as Celebrex and Vioxx.

### **New Study on Cost-Effective OA Treatments**

Providing a different perspective on these treatment guidelines, a research team at Harvard Medical School, Boston's Brigham and Women's Hospital, conducted a cost-effectiveness analysis of strategies for treating OA of the hip and knee, based on ACR's treatment guidelines. Starting with data from published clinical trials on outcome and medication dosage probabilities, the researchers used modeling software to simulate the clinical course, potential complications, and costs of treatment for eight medication strategies, including naprosyn, nonprescription NSAIDs, a selective COX-2 inhibitor, and acetaminophen. Using this methodology, the researchers found that acetaminophen is the most cost-effective first line treatment for the joint pain and stiffness of OA.

Because this study and the OA treatment guidelines will be of great interest to consumers, the Alliance for Aging Research – the nation's leading nonprofit organization dedicated to improving the health and independence of Americans as they age – asked a

team of leading arthritis and pain management specialists to translate this information into practical advice for older Americans and their physicians. Through a new campaign called *Making Sense of Arthritis Treatments*, the Alliance will disseminate this new information to raise awareness about the potential benefits of starting with less expensive but cost-effective over-the-counter treatments for managing OA symptoms. The goal will be to encourage a better dialogue between older Americans and their physicians about choosing the right medicine for treating arthritis and other chronic conditions.

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