International Experts Release Evidence-Based, Stratified Guidelines for Treating Osteoarthritis of the Knee

MOUNT LAUREL, N.J., March 4, 2014, —The Osteoarthritis Research Society International (OARSI) releases new evidence-based guidelines for the non-surgical treatment of osteoarthritis of the knee that, for the first time, are targeted to differing patient characteristics. These guidelines, which were published in the March 2014 issue of the journal *Osteoarthritis and Cartilage*, offer physicians and patients a more personalized approach for choosing the best course of treatment for osteoarthritis of the knee.

"Osteoarthritis is highly variable both in how it is expressed anatomically, and also in the characteristics of the people who get it. Osteoarthritis is a disease. It should not be considered simply a normal part of aging," says Dr. Timothy McAlindon, chair of the osteoarthritis guidelines development group and chief of rheumatology at Tufts Medical Center in Boston. "So, the long-term goal is to develop an approach that is much more individualized and personal."

Osteoarthritis (OA), a progressive disorder characterized by structural damage to joints, affects more than 600 million people worldwide and is the most common form of arthritis affecting the knee. Musculoskeletal conditions, including OA, are the second leading cause of disability worldwide and OA of the knee accounts for more than 14 million years lived with disability globally.

In this update of its 2010 treatment guidelines, OARSI considered the evolving scientific evidence on pharmacological and non-pharmacological treatments. The working group panel of experts also evaluated each treatment in the context of four different types of patients—(1) patients with OA of the knee only, (2) patients with OA of the knee and other health problems, such as diabetes, high blood pressure, and cardiovascular disease, (3) patients with OA of the knee and other joints, such as the hips, spine, or hands, and (4) patients with OA in multiple joint sites and other health problems.

"Osteoarthritis is the number one reason people have joint replacement surgery and is one of the top reasons people visit their doctor," says Dr. Gillian Hawker, OARSI board member and professor of rheumatology at University of Toronto. "The vast majority of people with OA of the knee have at least one other chronic health condition, but traditionally those patients have been excluded from studies testing treatments. We've done our best to provide some guidance for these patients."

By stratifying OA patients, the team came up with a ranked tree of therapies according to their appropriateness for different patient situations, says McAlindon.

Exercise still tops list

The new guidelines recommend a set of core treatments as appropriate for all individuals (listed in order from highest benefit-to-risk score to lowest): land-based exercise, weight management, strength training, water-based exercise, and self-management and education. For weight management, the OARSI guidelines make a specific recommendation of achieving a 5% weight loss within a 20-week period to be effective at treating knee OA.

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In addition, for patients who have OA of the knee only and no other health problems, the guidelines recommend biomechanical interventions such as knee braces, corticosteroid injections to the joint, topical non-steroidal anti-inflammatory drugs (NSAIDs), walking canes, oral selective NSAIDs, capsaicin, oral non-selective NSAIDs, the prescription drug duloxetine, and acetaminophen/paracetamol as appropriate treatments.

The guidelines also determined that some treatments are not appropriate for any category of patients, including electrotherapy/neuromuscular electrical stimulation and the drug risedronate. Also, the guidelines classify chondroitin and glucosamine as not appropriate for the purpose of reversing or slowing disease progression.

“There’s still a great emphasis on non-pharmacological approaches, which are recommended as the core treatments to be attempted first,” for all patients, says McAlindon. OARSI board member Dr. Jeffrey Katz highlights that land-based exercise, such as walking, consistently tops the list of effective treatments, with the highest benefit-to-risk score.

“Although it’s not necessarily intuitive for people with pain and joint problems, simply walking is a mainstay treatment that leads to demonstrable improvements,” says Katz, a rheumatologist at Brigham and Women’s Hospital in Boston. Physical activity is also essential in managing many chronic conditions that often accompany OA.

McAlindon also says there is an increasing trend in the use of topical medications such as capsaicin for pain relief and, as such, these treatments feature more prominently in this guideline ‘tree’ than they did in the past.

Another important change from previous guidelines was that increased safety concerns about acetaminophen/paracetamol and opioid painkillers lowered the appropriateness scores of these treatments for certain patients. At the same time, evidence had strengthened in recent years for the use of the drug duloxetine, thermal mineral baths known as balneotherapy, and land-based exercises such as t’ai chi in treating OA of the knee.

“There aren’t any huge surprises in these recommendations. The main difference is that we’ve taken a step towards more patient-centered clinical decision making,” says McAlindon.

Personalized scores for treatments

Previously, the guidelines provided only ranked scores for treatments to guide physicians, without categorizing specific treatments as appropriate or not. Now, each treatment has been given a specific recommendation category of either ‘appropriate’, ‘not appropriate’, or ‘uncertain’ for each of the four types of patients.

Each working group member gave each treatment an appropriateness score, a risk score, and a benefit score based on the current scientific literature. Members evaluated each treatment solely on safety and efficacy—they did not factor in cost of, access to, or insurance coverage of treatments.

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Health professionals can access the recommendation and risk-benefit scores for each treatment at the OARSI website, www.oarsi.org. A patient summary and a physician summary explaining the treatment guidelines can also be found on the website, http://www.oarsi.org/education/oarsi-guidelines

It is important to note that a tag of 'uncertain' is not meant to be a negative recommendation or to rule out the use of that therapy. Rather, it means that the working group found that more scientific evidence was needed to support a recommendation or that the treatment has a moderately high risk profile with too little effectiveness—in other words, the treatment's risk and benefit scores effectively cancel each other out. As such, treatments that fall into the 'uncertain' category should be weighed by individual physicians and patients to determine if the treatment may have merit in specific circumstances.

"In crafting these treatment guidelines, we're reminded just how badly we need disease-modifying therapies in the treatment of OA as well," says Katz. "The goal of these treatments are largely pain and symptom reduction and improving function. But missing from this arsenal are agents, other than joint replacement, that can actually turn this disease around."

About OARSI

The Osteoarthritis Research Society International (OARSI) is the leading medical society for advancing the understanding, early detection, treatment and prevention of osteoarthritis (OA) through its exclusive dedication to research. OARSI's passion and area of focus is on OA, a debilitating disease affecting more than 600 million people around the world. With more than 30 years of experience serving the OA community, OARSI provides the necessary framework, expert resources and support for its international constituents to address the challenges of OA so that the knowledge gained can ultimately be used to help improve patient care and patient outcomes. www.oarsi.org

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