

For more information, contact:

Kayee Ip

847-384-4035

312-543-3211

ip@aaos.org

Lauren P. Riley

847-384-4031

708-227-1773

pearson@aaos.org

**Stem cell centers on the rise, claim high efficacy
for treatment of knee osteoarthritis despite lack of evidence**
High treatment price may be greater than cost for total knee arthroplasty

NEW ORLEANS, La. (March 6, 2018)—Even with a lack of peer-reviewed evidence, the number of centers advertising stem cell therapies for [osteoarthritis](#) (OA) of the knee are increasing in the United States. These centers claim an 80 percent success rate, according to research presented this week at the 2018 Annual Meeting of the [American Academy of Orthopaedic Surgeons](#) (AAOS). Of the 65 centers that provided pricing information to treat OA of the knee, the cost ranged from \$1,150 to \$12,000, with an average of \$5,000 per injection

“Our role as orthopaedic surgeons is to provide accurate, credible information on treatment options to our patients,” said George Muschler, MD, Professor of Orthopaedic Surgery and Director at the Regenerative Medicine Laboratory at Cleveland Clinic. “Recent systematic reviews of cellular therapies for the treatment of knee OA (over 400 papers screened) have found poor levels of evidence for the efficacy of these treatments to date. Current evidence does not justify the rapid rate of growth for these therapies.”

Osteoarthritis affects more than 27 million Americansⁱ and an estimated 9.9 million adults suffer from OA the knee.ⁱⁱ Risk factors include age, genetics, being overweight, and repetitive knee bending or heavy lifting.ⁱⁱ Women have an increased risk of osteoarthritis of the knee as they age.ⁱⁱ OA of the knee causes joint pain, stiffness and makes movement difficult.ⁱⁱ

[Study details](#)

The researchers contacted 317 U.S. centers that offer direct-to-consumer stem cell musculoskeletal treatments. All communications were via phone or email. The 273 that were successfully contacted were asked for information on same-day stem cell injections for OA of the knee, including clinical efficacy and cost.

Sixty-five centers provided pricing for a same-day stem cell unilateral knee injection. The mean cost for each therapy was \$5,156, with prices varying from \$1,150 to \$12,000. Fourteen centers charged less than \$3,000 and 10 clinics charged more than \$8,000 per injection. As insurance doesn't cover stem cell treatments, coverage is paid 100 percent by the patient.

Regarding treatment effectiveness, 36 centers provided data with the mean marketed clinical efficacy of 82.2 percent. Ten clinics claimed 90-100 percent efficacy, 15 claimed 80 to 90 percent efficacy, 10 claimed 70 to 80 percent efficacy and one claimed 55 percent of greater clinical efficacy. The researchers found no correlation between treatment costs and marketed clinical efficacy.

“The claim of “stem cell” therapy carries a high level of expectations for the potential benefits, but research is still many years away from providing clear evidence of effective treatment to patients,” said Nicolas S. Piuze, MD, lead author and Clinical Scholar in Orthopaedic Regenerative Medicine and Cellular Therapy in the Department of Orthopaedic Surgery at Cleveland Clinic. “As clinicians and researchers, we have ethical, scientific, legal and regulatory concerns. Patients need to be aware of the status of

research within the field. If they receive information from anyone offering a treatment claim of an 80 to 100 percent successful recovery, they should be concerned in observance of published peer-reviewed evidence.”

The study “[The Stem-Cell Market for Treatment of Knee Osteoarthritis: A Patient Perspective](#)” appeared in the July 24, 2017 issue of *The Journal of Knee Surgery*.

[2018 AAOS Annual Meeting Disclosure Statements](#)

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ⁱ Qin J, Theis KA, Barbour KE, Helmick CG, Baker NA, Brady TJ. Centers for Disease Control and Prevention. Impact of arthritis and chronic conditions on selected life domains – United States, 2013. *MMWR*. 2015;64(21):578-582.

ⁱⁱ American Academy of Orthopaedic Surgeons. Treatment of Osteoarthritis of the knee. Evidence-Based Guideline, 2nd Edition. May 18, 2013.

https://www.aaos.org/uploadedFiles/PreProduction/Quality/Guidelines_and_Reviews/Osteoarthritis%20of%20the%20Knee%20-%20non-arthroplasty.pdf. Accessed 2/1/2018.