

**Annual European Congress of Rheumatology
(EULAR 2019)**

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**PATIENTS AT A REDUCED RISK OF VENOUS THROMBOEMBOLISM AND
PERSISTENT PAIN AFTER PARTIAL VERSUS TOTAL KNEE REPLACEMENT**

Benefits achieved in patients with osteoarthritis partly offset by an increased risk of revision¹

Madrid, Spain, 13 June 2019: The results of a study presented today at the Annual European Congress of Rheumatology (EULAR 2019) demonstrate reduced risk of venous thromboembolism and persistent pain, but increased risk of revision in partial versus total knee replacement in patients with osteoarthritis.¹

In severe knee osteoarthritis, there are two main types of surgical intervention; partial or total knee replacement. In partial knee replacement only the part of the knee that has osteoarthritis is replaced, whereas in total knee replacement the entire joint is replaced. Although partial knee replacement has been associated with significant advantages, high rates of revision have been reported.² This is where the implant components are removed, added or replaced. While partial knee replacement is cheaper than total knee replacement,³ there is uncertainty as to which surgery is better for patients. This is reflected by variability in the use of partial knee replacement with, for example, 50% of patients eligible for either procedure in the UK but less than 10% receiving a partial knee replacement.⁴

“Our study clearly demonstrates significant short-term advantages of partial knee replacement over total knee replacement and although the long-term risk of revision is higher for partial knee replacement, this is likely, at least partly, explained by a greater willingness to revise a partial knee replacement”, said Edward Burn, DPhil student, Centre for Statistics in Medicine, University of Oxford, United Kingdom. “The results of our study based on real-world data will complement those from a forthcoming randomised controlled trial comparing the two procedures, the Total Or Partial Knee Arthroplasty Trial (TOPKAT)”.

The study by Mr Burn and colleagues from across Europe and the United States, replicated the design of the TOPKAT trial in real-world data and included 32,379 and 250,377 patients who received partial or total knee replacement respectively. They found partial knee replacement is associated with a 25-50% reduction in the 60-day risk of venous thromboembolism after surgery, and a 15-30% lower risk of persistent pain after surgery. However, partial knee replacement was also associated with an increased risk of revision, with the five-year risk of revision increasing from around 2.5-5% for total knee replacement to 5-7.5% for partial knee replacement.¹

“There is a lack of clinical consensus on the profile of patients with osteoarthritis suitable for partial versus total knee replacement,” said Professor Hans Bijlsma, President, EULAR. “We welcome these data as they will help inform both patients and physicians to support an individualised approach to care.”

This multi-database propensity-score matched cohort study included data from four US claims databases (IBM MarketScan® Commercial Database (CCAЕ), IBM MarketScan® Medicare Supplemental Database (MDCR), Optum® de-identified Clinformatics Datamart Extended – Date of Death (Optum), and Pharmedics) and one UK primary care electronic medical record database (THIN). All people aged 40 years or older at the time of first knee replacement surgery were included and followed for up to five years. Outcomes included short-term (60-day) post-operative complications (infection, venous thromboembolism, mortality, readmission), opioid use in the three to 12 months post-surgery as a proxy for persistent pain, and five-year revision risk. Propensity score matching (up to 1:10) was used to control for all available confounders, and negative control outcomes and calibration to minimise the impact of residual confounding.

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-ENDS-

NOTES TO EDITORS

For further information on this study, or to request an interview with the study lead, please do not hesitate to contact the EULAR Press Office:

Email: eularpressoffice@ruderfinn.co.uk

Telephone: +44 (0) 20 7438 3084

Twitter: @EULAR_Press

EULAR TV: YouTube.com/EULARorg

About Rheumatic and Musculoskeletal Diseases

Rheumatic and musculoskeletal diseases (RMDs) are a diverse group of diseases that commonly affect the joints, but can affect any organ of the body. There are more than 200 different RMDs, affecting both children and adults. They are usually caused by problems of the immune system, inflammation, infections or gradual deterioration of joints, muscle and bones. Many of these diseases are long term and worsen over time. They are typically painful and limit function. In severe cases, RMDs can result in significant disability, having a major impact on both quality of life and life expectancy.⁵

About 'Don't Delay, Connect Today!'

'Don't Delay, Connect Today!' is a EULAR initiative that unites the voices of its three pillars, patient (PARE) organisations, scientific member societies and health professional associations - as well as its international network - with the goal of highlighting the importance of early diagnosis and access to treatment. In the European Union alone, over 120 million people are currently living with a rheumatic disease (RMD), with many cases undetected.⁶ The 'Don't Delay, Connect Today!' campaign aims to highlight that early diagnosis of RMDs and access to treatment can prevent further damage, and also reduce the burden on individual life and society as a whole.

About EULAR

The European League against Rheumatism (EULAR) is the European umbrella organisation representing scientific societies, health professional associations and organisations for people with RMDs. EULAR aims to reduce the burden of RMDs on individuals and society and to improve the treatment, prevention and rehabilitation of RMDs. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with RMDs by the EU institutions through advocacy action.

To find out more about the activities of EULAR, visit: www.eular.org

References

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- ⁶ EULAR. 10 things you should know about rheumatic diseases fact sheet. Available at: <https://www.eular.org/myUploadData/files/10%20things%20on%20RD.pdf> [Last accessed May 2019].