



Biologics and Biosimilars for People with Rheumatoid Arthritis

Rheumatoid arthritis is a chronic disease that causes severe inflammation of the joints, leading to stiffness and pain. Biologics are a class of drugs that can treat rheumatoid arthritis by targeting parts of the immune system that contribute to inflammation, and biosimilars are drugs that are very alike to biologics. These treatments can be life changing for some patients with rheumatoid arthritis, though there is a gap in the literature regarding their effectiveness.

This systematic review aims to summarize current evidence on the efficacy of biologic and biosimilar therapies for individuals with rheumatoid arthritis. The review focuses on two key questions: the clinical effectiveness of these therapies in preventing total joint replacement surgery compared to standard care (without biologic or biosimilar therapy), and their impact on other long-term, patient-important outcomes.

Following the completion of the review, a knowledge exchange event was hosted at the University of Calgary on February 25, 2025, prior to the Canadian Rheumatology Association Annual Scientific Meeting. The event consisted of an open discussion and Q&A about knowledge gaps and needs regarding the impact of biologics and other advanced therapies on rheumatoid arthritis in preventing joint surgeries. Diverse interest holders participated, including patient partners, industry, researchers, clinicians, and policy-makers. Discussions focused on patient priorities in research, the need to include real-world evidence in decision-making, and what policy-makers require to make better listing decisions. Shortly after the event was held, the Primary and Preventative Health Services in Alberta eliminated the requirement for the Health Assessment Questionnaire to be completed as a condition of biologic medication renewal as it did not adequately reflect patient experiences and needs, demonstrating the impact of the event.

Linda Wilhelm

Patient and Public Partner, SPOR Evidence Alliance

Linda is the President of The Canadian Arthritis Patient Alliance, a national, volunteer, patient driven organization that has worked to improve the lives of people living with arthritis since 2002. She is co-chair of the Patient Engagement Committee for the Chronic Pain Strategy for Patient Oriented Research (SPOR) Network. She has lived experience with rheumatoid arthritis for over 35 years. Linda has been an active advocate for treatment access and quality of care for all patients both regionally and nationally for over 20 years.



Laurie Proulx

Patient and Public Partner, SPOR Evidence Alliance

Laurie Proulx has lived with Juvenile Rheumatoid Arthritis for over 30 years in a time where treatment options and outcomes were very different for people with arthritis. It is her experiences that led to her involvement in the Canadian Arthritis Patient Alliance, a grass-roots patient driven and managed organization, where she is now part-time Managing Director. She believes that people with arthritis should be involved in all aspects of health care and in policy decision making—this belief led her to become self-employed where she works as a consultant offering services focused on community engagement, health and social policy, patient education, and knowledge translation.



RESEARCH SPOTLIGHT (cont.)



SPOR Evidence Alliance
Strategy for Patient-Oriented Research
Alliance pour des données
probantes de la SRAP
Stratégie de recherches axée sur le patient



Shannon Kelly, PhD, MSc

Research Methodologist, University of Ottawa Heart Institute

Shannon manages and works as a senior research methodologist in the Health Technology Assessment Unit of the Cardiovascular Research Methods Centre at the University of Ottawa Heart Institute where she focuses her work on advancing the science of evidence synthesis, research design and methodology. Her team conducts evidence syntheses to inform health care practice and policy. In this capacity, she has worked with a number of organizations nationally and internationally, including Canada's Drug Agency, Health Canada, the Public Health Agency of Canada, the World Health Organization and the Cochrane Collaboration. Shannon holds a PhD from the Faculty of Medicine, School of Epidemiology and Public Health at the University of Ottawa and was a trainee with the Cardiovascular Network of Canada (CANet) National Centre of Excellence.



George Wells, PhD, MSc

Director, Cardiovascular Research Methods Centre, Professor, University of Ottawa Heart Institute

Dr. George Wells is the Director and Principle Investigator of the Cardiovascular Research Methods Centre at the University of Ottawa Heart Institute and Professor in the School of Epidemiology and Public Health at the University of Ottawa. Also at the University of Ottawa, he serves as Professor in the Department of Medicine and Senior Scientist Affiliate at the Ottawa Hospital Research Institute. Dr. Wells has worked extensively with national and international government and non-government research organizations, as well as private pharmaceutical and biotechnology industries. His research interests are in the design and analysis of clinical trials, health technology assessment, statistical methodology related to health care delivery, systematic reviews and meta-analysis, economic evaluations and the development and assessment of decision support technologies for patients and practitioners.



Glen Hazlewood, MD, PhD, FRCPC

Associate Professor, Cumming School of Medicine, University of Calgary

Dr. Glen Hazlewood is a rheumatologist and an assistant professor in the Division of Rheumatology, Department of Medicine in the Cumming School of Medicine. He is a member of the McCaig Institute for Bone and Joint Health and the O'Brien Institute for Public Health and Arthritis Research Canada. Dr. Hazlewood's program of research is focused on understanding how to align treatment choices in rheumatoid arthritis and other chronic immune-mediated diseases with both best evidence and patients' preferences. His research areas of interest include network meta-analyses, patient preference research, clinical practice guidelines, decision tools, and pragmatic randomized controlled trials. Dr. Hazlewood also serves as a clinical advisor to the research team.

