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Factors Associated with Use of Biological Therapies for Axial Spondyloarthritis in Canada. Results from the IMAS survey.

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Background:

Biologics have revolutionized the treatment of axial spondyloarthritis (axSpA). However, there is limited knowledge about factors associated with their use in Canada.

Objectives:

To evaluate sociodemographic, healthcare and patient-reported outcomes (PROs) associated with the use of biologics in Canadian axSpA patients.

Methods:

The International Map of Axial Spondyloarthritis (IMAS) is a cross-sectional online survey of non-selected patients with self-reported axSpA, conducted in 21 countries and endorsed by the Axial Spondyloarthritis International Federation (ASIF). IMAS captures the patients' perspective of the burden of axSpA. The Canadian adaptation included a review of the survey by an advisory board of axSpA patients and a national steering committee composed of the Canadian Spondylitis Association, rheumatologists and patients. Participants were recruited between August 2018 and February 2019. Sociodemographic and healthcare-related variables, as well as PROs (disease activity [BASDAI, 0–10], spinal stiffness [3–12], functional limitation [0–54] and psychological distress [GHQ-12]) were collected. Respondents were divided in 2 groups 1) biologic and 2) NSAIDs or no treatment, based on reported pharmacologic treatments. Statistical analyses were performed to assess associations between variables and biologic use (bivariate) and the relative weight of these associations (multivariate).

Results:

542 axSpA patients were recruited. Mean age was 44.3±13.9 years, 63.1% were female, 66.4% married and 81.0% educated to university/college level. 22.8% of patients lived >50 km from their rheumatologist. Mean BASDAI was 5.3±2.1 and mean GHQ-12 score (mental health) was 4.0±3.8. Nearly half (49.6%) were currently on a biologic. Reported incidence of side effects was lower for patients having biologics (42.5%) vs. a NSAIDs (53.7%) as part of their treatment armamentarium. Only 15.7% of patients had discontinued biologic therapy, the main reasons for withdrawal being physician recommendation (50%), side effects (50%) and personal choice (34%). Variables associated with biologic use included: membership of

a patient support group ($p<0.001$), non-manual work ($p=0.008$), higher income level ($p=0.039$), having a combination of public and private insurance schemes ($p<0.001$) and diagnosis by a rheumatologist ($p<0.001$). Associated PROs were spinal stiffness ($p=0.011$) and diagnostic delay ($p=0.030$). In the multivariate analysis, all variables except income and diagnostic delay were associated with biologic use (Table 1).

Table 1. Analysis of sociodemographic and clinical variables in relation to pharmacologic treatment

Variable	Univariate linear regression		Multivariate stepwise linear regression	
	B	95% CI	B	95% CI
Income level	0.001	1.000–1.000	NA	NA
Employment—manual worker	-0.761	0.266–0.822	-0.838	0.228–0.820
Member of a patient support group	0.937	1.797–3.628	1.116	1.754–5.309
Health insurance scheme—combination	0.209	1.162–1.307	0.215	1.132–1.357
Diagnostic delay	0.009	0.993–1.026	NA	NA
Spinal Stiffness (3–12)	0.099	1.022–1.193	0.220	1.090–1.424
Diagnosed by rheumatologist	0.535	1.412–2.067	0.335	1.041–1.877

B, B coefficient; NA, [not applicable]

Conclusion:

Canadian axSpA patients with greater social status, disease awareness, and insurance options are more likely to receive biologic therapy. Furthermore, Canadian physicians are more inclined to prescribe biologics to patients with increased spinal stiffness.

References:

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