

Letters to the Editor

Patients With Postural Orthostatic Tachycardia Syndrome Have Different Experiences in Health Care in Canada and the United States

To the Editor:

Postural orthostatic tachycardia syndrome (POTS) is an autonomic disorder characterised by excessive orthostatic tachycardia (≥ 30 beats/min) and orthostatic symptoms in the absence of significant hypotension ($\geq 20/10$ mm Hg).¹ Although POTS significantly affects the health of individuals worldwide, we hypothesise that the illness experience may vary among countries. The aim of this study was to compare POTS patients experience in the United States (US) and Canada.

Data were collected using the “Diagnosis and Impact of POTS” online survey, an institutional review board –approved, community-based, self-reported survey completed by physician-diagnosed POTS patients from July 2015 to April 2021. Answers related to diagnostic process and illness experience were compared between patient populations in Canada and the US. Continuous results are reported as median (interquartile range), and categoric results are reported as percentage. Statistical analyses were conducted with the use of Mann-Whitney *U* and Pearson chi-square tests for continuous and categoric data, respectively.

Among the 5733 participants who indicated their geographic location (Canada: $n = 221$; US: $n = 5512$), the majority were female (94%) and over 18 years old (89%). Patients in Canada reported seeing more doctors for their POTS symptoms before receiving a diagnosis than did US patients (6.0 [4.0-10.0] vs 5.0 [3.0-8.0]; $P < 0.001$). Diagnostic delay was significantly longer for patients in Canada than for those in the US (2.2 [0.8-6.6] years vs 1.3 [0.3-5.3] years; $P < 0.001$) (Figure 1). Canadians were more likely to report suggesting POTS to their doctor before their doctor suggested it (43% vs 34%; $P = 0.01$). Even after diagnosis, a greater proportion of Canadian patients had a doctor tell them they had never heard of POTS (78.1% vs 67.3%; $P < 0.001$). Canadians reported higher rates of symptoms like blurred vision (83% vs 75%; $P = 0.007$), tremulousness (84.9% vs 76.3%; $P = 0.006$), and tachycardia (99.5% vs 96.7%; $P = 0.035$) than Americans.

It was more common for patients in Canada to have had a doctor suggest their symptoms were the result of a psychologic illness rather than a physical illness before their POTS diagnosis, compared with US patients (86% vs 78%; $P = 0.005$). Following POTS diagnosis, more patients in the US were being treated for a psychologic condition than patients in Canada (38% vs 29%; $P = 0.006$).

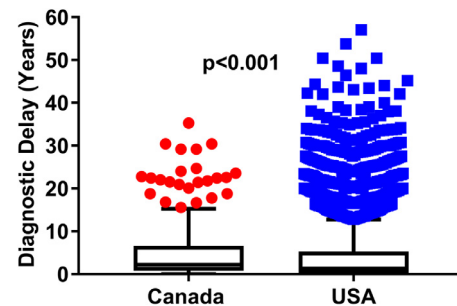


Figure 1. Diagnostic delay, defined as the time between symptom onset and time of first diagnosis, in years, split by country (Canada vs USA). Data are plotted as a box and whiskers plot where the box represents the interquartile range (IQR) and the line in the box represents the median. The error bar length is $1.5 \times$ the IQR. The individual points plotted are outliers above the error cutoff.

While POTS patients experience barriers to care in both countries, POTS patients in Canada face greater diagnostic challenges than patients in the US. Increased diagnostic delays, the need to visit more physicians before diagnosis, and the lack of physician familiarity with POTS together suggest that Canada may benefit from additional POTS clinician education.

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Dr Raj is a consultant for Lundbeck NA and GE Healthcare, chair of the Data Safety and Monitoring Board for Arena Pharmaceuticals, network investigator for Cardiac Arrhythmia Network of Canada, and on the Medical Advisory Boards of

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Reference

1. Raj SR, Guzman JC, Harvey P, et al. Canadian Cardiovascular Society position statement on postural orthostatic tachycardia syndrome (POTS) and related disorders of chronic orthostatic intolerance. *Can J Cardiol* 2020;36:357–72.