Identifying Spasticity Treatment Gaps in Long-term Care and Community Settings from Ontario Real-world Evidence

Description

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ABSTRACT

Objectives: Post-stroke spasticity (PSS) is a debilitating condition that may be undertreated in patients in long-term care (LTC) facilities. This study evaluated gaps in care for PSS in LTC and community settings in Ontario, Canada. **Design:** Retrospective, observational, real-world study. **Setting and Participants:** Patients in Canadian LTC and community settings with ?1 claim for any botulinum toxin A (BoNT/A) treatment for focal spasticity between 1/1/2010 and 12/31/2019 were included. **Methods:** Data from the longitudinal IQVIA Ontario Drug Benefit (ODB) claims database were used. Patients were stratified into LTC and community cohorts. Outcomes included total patients treated and total claims per year, treatment rate, mean number of injections per patient per year (two-sided Wilcoxon rank sum test), and time to treatment. **Results:** Over 10 years, the numbers of patients treated with BoNT/A (2010: n=522; 2019: n=4056), BoNT/A claims for PSS (2010: n=997; 2019: n=12,579), and proportions of claims from LTC residents (2010: 46%; 2019: 52%) increased. The estimated rate of BoNT/A treatment in LTC patients with PSS increased from 33.1% (2015) to 62.5% in 2019, leaving 37.5% of eligible LTC residents untreated. Mean number of injections per patient per year increased from 1.9 in 2010 to ~3.0 in 2017 to 2019 in both LTC and community cohorts. After LTC admission, median time to first physical medicine and rehabilitation physician or neurologist claim was 2.8 years and time to first BoNT/A injection was 2.9 years. **Conclusions and Implications:** This claims database analysis of patients treated for post-stroke focal spasticity in Ontario revealed a large, undertreated population not receiving BoNT/A therapy and a long time lag between LTC admission and treatment with BoNT/A. These findings highlight the need to increase access to PSS treatment to help reduce patient and caregiver burden.

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Conflicts of Interest: Omar Khan has received honoraria for participation in advisory boards and provision of education and training pertaining to neurotoxin use in spasticity and focal dystonia. He has received sample Botulinum Toxin A from AbbVie, Ipsen, and Merz for clinical patient management. Cathy Vo is an employee of AbbVie and may hold AbbVie stock. Riccardo Pedersini is a health economics consultant for AbbVie. Galit Kleiner, in partnership with Baycrest Health Sciences, owns a use patent for the indication of Botulinum Toxin for paratonia. She has received payments for patent maintenance fees from AbbVie (February 2021, April 2022) while considering licensing of patent (declined). No current relationship. She has received consulting fees and honoraria from AbbVie and Ipsen. She has received sample Botulinum Toxin A from AbbVie, Ipsen, and Merz. Huijuan Yang, Shoghag Khoudigian-Sinani, and Bradley Millson are employees of IQVIA Canada. IQVIA was paid by AbbVie to conduct this research.

Statement of Authorship: Study concept and design: Omar Khan, Bradley Millson, Huijuan Yang, Shoghag Khoudigian-Sinani, Cathy Vo, Galit Kleiner. Acquisition of data: Bradley Millson. Analysis and interpretation of data: Omar Khan, Bradley Millson, Huijuan Yang, Shoghag Khoudigian-Sinani, Riccardo Pedersini, Cathy Vo, Galit Kleiner. Drafting of the manuscript: Omar Khan, Bradley Millson, Huijuan Yang, Shoghag Khoudigian-Sinani, Cathy Vo, Galit Kleiner. Critical revision of the manuscript for important intellectual content: Omar Khan, Cathy Vo, Huijuan Yang, Shoghag Khoudigian-Sinani, Bradley Millson, Riccardo Pedersini, Galit Kleiner.

Data Sharing Statement: AbbVie is committed to responsible data sharing regarding the clinical trials we sponsor. This includes access to anonymized, individual, and trial-level data (analysis data sets), as well as other information (eg, protocols, clinical study reports, or analysis plans), as long as the trials are not part of an ongoing or planned regulatory submission. This includes requests for clinical trial data for unlicensed products and indications. These clinical trial data can be requested by any qualified researchers who engage in rigorous, independent, scientific research, and will be provided following review and approval of a research proposal, Statistical Analysis Plan (SAP), and execution of a Data Sharing Agreement (DSA). Data requests can be submitted at any time after approval in the US and Europe and after acceptance of this manuscript for publication. The data will be accessible for 12 months, with possible extensions considered. For more information on the process or to submit a request, visit the following link: https://vivli.org/ourmember/abbvie/ then select “Home.”

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