

# **Patient Satisfaction With OnabotulinumtoxinA Treatment of Glabellar and Lateral Canthal Lines Evaluated Using the FLSQ<sup>®</sup>: A New Patient-Reported Outcome Measure**

Jason K. Rivers,<sup>1</sup> Vince Bertucci,<sup>2</sup> Channy Muhn,<sup>3</sup> Nathan Rosen,<sup>3</sup> Kevin Smith,<sup>4</sup> Nowell Solish,<sup>5</sup> Sarah Darmody,<sup>6</sup> Selena R. Daniels,<sup>6</sup> Conor J. Gallagher<sup>6</sup>

<sup>1</sup>Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada; <sup>2</sup>Division of Dermatology, University of Toronto, Toronto, Canada; <sup>3</sup>Division of Dermatology, McMaster University, Hamilton, Canada; <sup>4</sup>Niagara Falls Dermatology & Skin Care Centre, Niagara Falls, Canada; <sup>5</sup>Division of Dermatology, Women's College Hospital, Toronto, Canada; <sup>6</sup>Allergan, Inc., Irvine, CA, USA

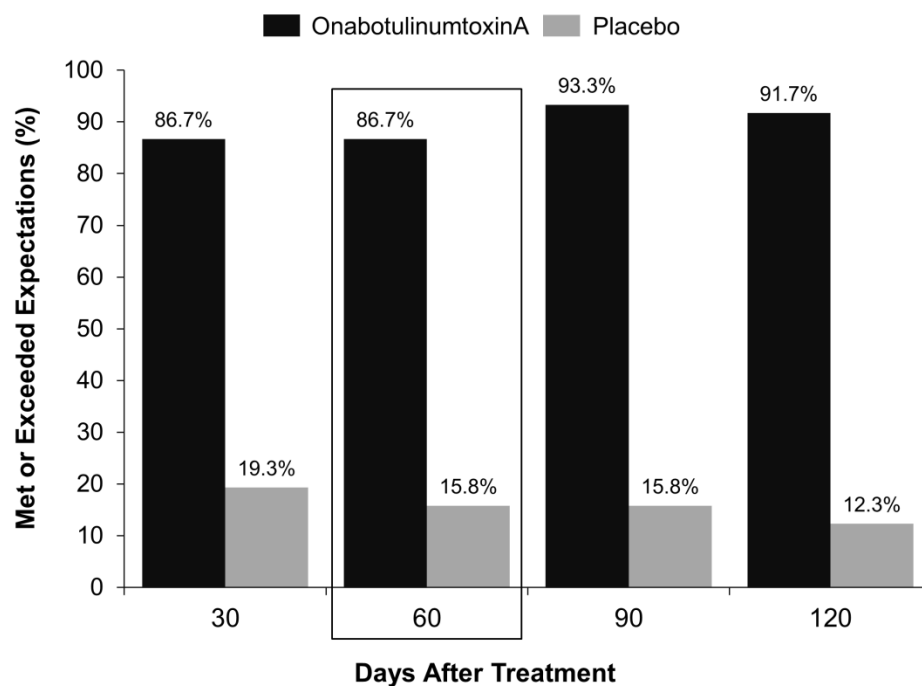
## **ABSTRACT**

**Objective:** Determine subject satisfaction with onabotulinumtoxinA treatment of glabellar lines (GL) and lateral canthal lines (LCL) using the Facial Line Satisfaction Questionnaire (FLSQ<sup>®</sup>), a recently developed and validated patient-reported outcome measure.

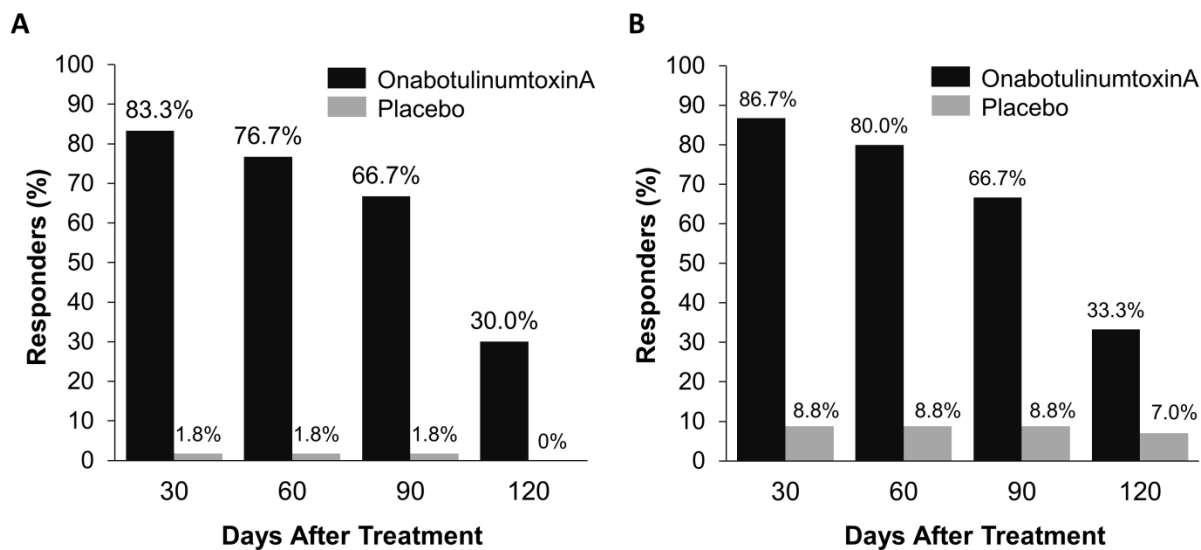
**Materials and Methods:** This randomized, double-blind, placebo-controlled, multicenter study enrolled subjects with moderate or severe GL and with LCL. Subjects received a total of 44 U of onabotulinumtoxinA (20 U for GL; 24 U for LCL) or placebo. Assessments were performed at 30, 60, 90, and 120 days after treatment. The FLSQ Follow-up Version is a 13-item instrument with 5 domains: treatment satisfaction, treatment impact, treatment expectations, recommending treatment, and continuing treatment. A validated stand-alone question from FLSQ<sup>®</sup> (#5) was used to assess overall satisfaction with GL and LCL. Additional assessments included severity of GL and LCL using the Facial Wrinkle Scale with photonumeric guide (FWS), and investigator- and subject-evaluated improvement in facial lines on the Global Aesthetic Improvement Scale (GAIS).

**Results:** Of 125 subjects enrolled in the study, 117 (mean age, 46.5 years; females, 83.8%) met the criteria for the per-protocol analysis. Most subjects (81.7.0%) receiving onabotulinumtoxinA were “satisfied”/“very satisfied” with treatment effect on GL and LCL at the primary time point of day 60 versus placebo (0%;  $P<.001$ ). Similar results were seen at all time points. Treatment exceeded or met expectations in at least 86% of subjects at all time points (Figure 1). On the FWS, 83.3% and 86.7% of subjects achieved none or mild for GL and at least a 1-grade improvement for LCL at day 30 versus placebo (1.8% and 8.8%, respectively; Figure 2). Most subjects were “improved”/“much improved” on the GAIS at day 60 as assessed by the investigator and subject (86.7% and 83.3%, respectively). Adverse events were infrequent and typical of those seen in similar clinical trials, with 6 subjects experiencing 7 onabotulinumtoxinA-related adverse events (one moderate [headache], the rest mild in severity). No subjects experienced ptosis.

**Figure 1.** Proportion of subjects in the per-protocol population who reported that treatment results met their expectations (FLSQ<sup>®</sup>) at day 60 for the treatment of glabellar lines and crow's feet lines combined.



**Figure 2.** Responses on the investigator-assessed Facial Wrinkle Scale for (A) glabellar lines, based on ratings of “none” or “mild,” and for (B) crow’s feet lines, based on at least a 1-grade improvement from baseline.



**Conclusions:** High and sustained satisfaction in subjects treated with onabotulinumtoxinA for GL and LCL was achieved. At least 86% of subjects reported that treatment met or exceeded expectations at all time points.