IHC-PO-361

# Triptan Use and Associated Patient-Reported Outcomes in Patients With Migraine

Mallory Farrar[1*], Louise Lombard[1], Wenyu Ye[1], Yongin Kim[1], Sarah Cotton[2], James Jackson[2], Ann Hake[1]

[1]Eli Lilly and Company, Indianapolis, USA (*former employee), [2]Adelphi Real World, Bollington, UK

## BACKGROUND AND OBJECTIVE

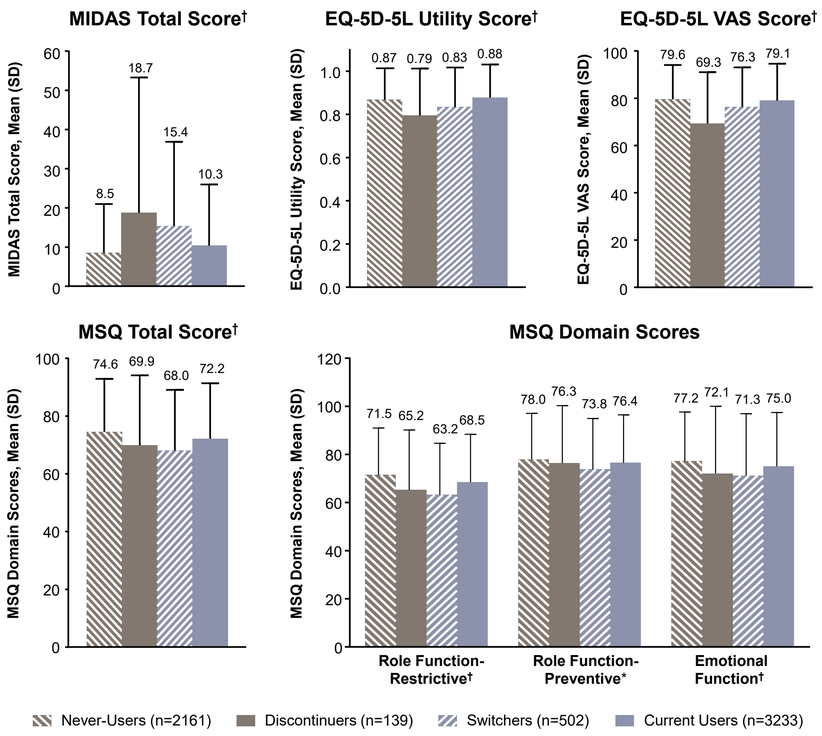
- Triptans are recommended as first-line acute treatment of moderate to severe migraine attacks, but persistence tends to be low,[1] with lack of efficacy and side effects being the main reasons for triptan discontinuation[2]
- ~30-40% of patients with migraine do not respond adequately to triptans[3-8]
- Triptans are poorly tolerated or contraindicated in many patients owing to their cardiovascular effects[9]
- Consequently, many patients with migraine are dissatisfied with their usual acute medication[3,10]
- The objective of this study was to compare health-related quality of life (HRQoL) and treatment satisfaction among patients with migraine on the basis of their current triptan use

HRQoL=health-related quality of life.

1. Messali A et al. *J Manag Care Spec Pharm* 2014;20:368-75.
2. Wells RE et al. *Headache* 2014;54:278-89.
3. Lipton RB et al. *Headache* 2013;53:1300-11.
4. Viana M et al. *Cephalalgia* 2013;33:891-6.
5. Ferrari MD et al. *Cephalalgia* 2002;22:633-58.
6. Dodick DW. *Headache* 2005;45:156-62.
7. Mathew NT et al. *Headache* 2009;49:971-82.
8. Lipton RB et al. *Headache* 2018;58:1408-26.
9. Lipton RB et al. *Curr Med Res Opin* 2005;21:413-24.
10. Lipton RB and Stewart WF. *Headache* 1999;39(Suppl 2):S20-6.

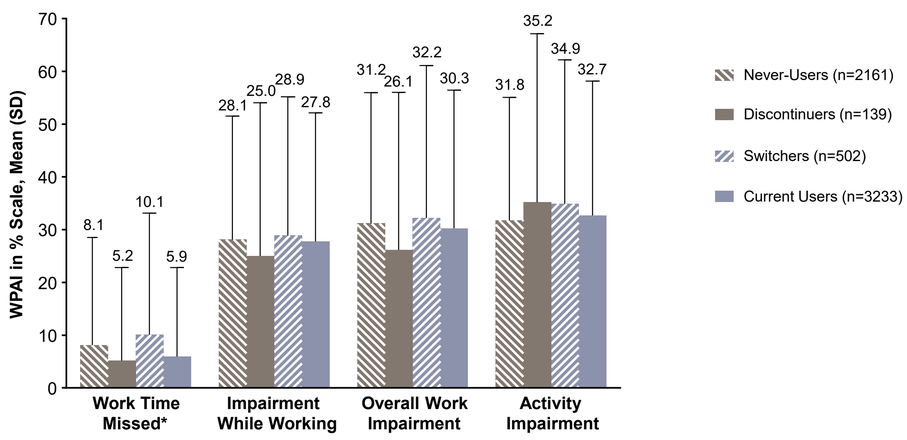
## KEY RESULTS

**Patients Who Had Switched or Discontinued Triptans Reported Greater Disability According to MIDAS, and Lower HRQoL According to EQ-5D-5L and MSQ Scores**




*p<0.05; †p<0.001 across 4 triptan user groups by ANOVA.
Note: Higher MIDAS score indicates greater disability; lower MSQ score indicates lower HRQoL; lower EQ-5D-5L score indicates lower HRQoL.
N values reflect triptan use groups from physician-completed patient record forms; results are from patient self-completed forms with lower base numbers.
ANOVA=analysis of variance; EQ-5D-5L=EuroQol-5 Dimensions-5 Levels; HRQoL=health-related quality of life; MIDAS=Migraine Disability Assessment; MSQ=Migraine-Specific Quality-of-Life Questionnaire; SD=standard deviation; VAS=visual analog scale.

**Triptan Switchers and Never-Users Missed More Days of Work Than Current Users or Discontinuers**




*p<0.05 across 4 triptan user groups by ANOVA.
Note: Higher WPAI score indicates greater impairment.
N values reflect triptan use groups from physician-completed patient record forms; results are from patient self-completed forms with lower base numbers.
ANOVA=analysis of variance; SD=standard deviation; WPAI=Work Productivity and Activity Impairment.

## Methods

### Study Design

- Data were drawn from the 2017 Adelphi Migraine Disease Specific Programme™ (DSP)
- DSP is a point-in-time survey of primary care physicians, neurologists, and headache specialists and their consulting patients with migraine, in the USA and 5 major European countries (EU5: France, Germany, Italy, Spain, and UK)
  - **Physician-completed patient record forms:** Demographics, diagnoses, migraine symptoms, migraine treatments
  - **Patient self-completed forms:** Demographics, current symptoms, treatment satisfaction, HRQoL (Migraine-Specific Quality-of-Life Questionnaire [MSQ] V2.1, EuroQol-5 Dimensions-5 Levels [EQ-5D-5L], Migraine Disability Assessment [MIDAS]), Work Productivity and Activity Impairment (WPAI)

### Study Population

- Patients with a physician-confirmed diagnosis of migraine and physicians who treat patients with migraine
- Patients were analyzed in 4 user subgroups:
  - **Current triptan users**
    - Current users: current triptan acute regimen and no previous triptan use
    - Switchers: current triptan acute regimen and previous use of a different triptan
  - **Not current triptan users**
    - Discontinuers: no current triptan acute regimen and previous triptan use
    - Never-users: no current triptan acute regimen and no previous triptan use

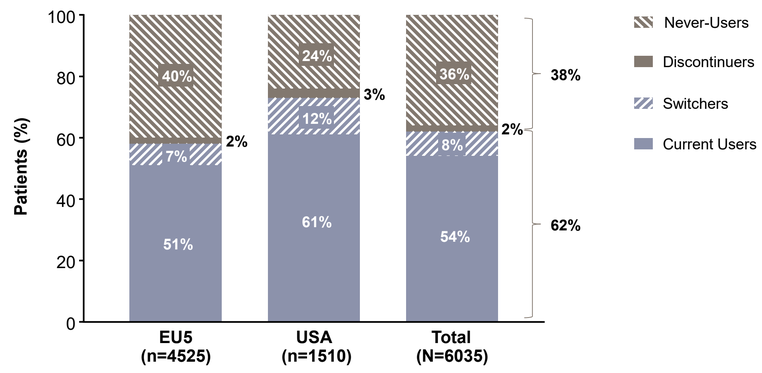
### Statistical Analysis

- Triptan user groups were compared across groups using 1-way analysis of variance (ANOVA) or Kruskal-Wallis test for continuous variables and chi-square or Fisher exact test for categorical variables
- All statistical tests were conducted at a 2-sided 5% significance level

## Results

**Of 6035 Patients, 62% Were Currently Using Triptans (Current Users or Switchers) and 38% Were Not Using Triptans (Discontinuers or Never-Users)**

- More patients in the USA vs. EU5 were currently using triptans*




*p<0.001 for USA vs. EU5 by chi-square test.
EU5=5 major European countries: France, Germany, Italy, Spain, and UK.

**Triptan Discontinuers and Switchers Reported More Headache Days per Month and Never-Users Had Lower Migraine Severity Over Past 3 Months**

- More current users and switchers take their acute medication at the first sign of migraine than never-users or discontinuers

| | Not Current Triptan Users | | Current Triptan Users | |
|---|---|---|---|---|
| | Never-Users (n=2161) | Discontinuers (n=139) | Switchers (n=502) | Current Users (n=3233) |
| Age, years, mean (SD)† | 38.9 (15.1) | 44.5 (13.6) | 42.6 (11.7) | 40.5 (13.0) |
| Female, n (%)* | 1493 (69.1) | 110 (79.1) | 378 (75.3) | 2338 (72.3) |
| Headache days per month over past 3 months, mean (SD) | | | | |
| Patient-reported† | 5.1 (4.6) | 6.5 (6.6) | 6.8 (6.4) | 5.5 (4.6) |
| Physician-reported† | 5.4 (5.4) | 7.6 (7.6) | 7.5 (6.6) | 5.8 (5.1) |
| Migraine severity[a] over past 3 months, mean (SD)† | 5.6 (2.0) | 6.1 (2.1) | 6.1 (2.1) | 6.0 (2.0) |
| Timing of acute medication use, n (%)‡ | | | | |
| At first sign of migraine[b] | 308 (53.1) | 27 (51.9) | 153 (60.2) | 979 (64.9) |
| When pain starts | 221 (38.1) | 22 (42.3) | 81 (31.9) | 454 (30.1) |
| After pain starts and severity known | 51 (8.8) | 3 (5.8) | 20 (7.9) | 75 (5.0) |

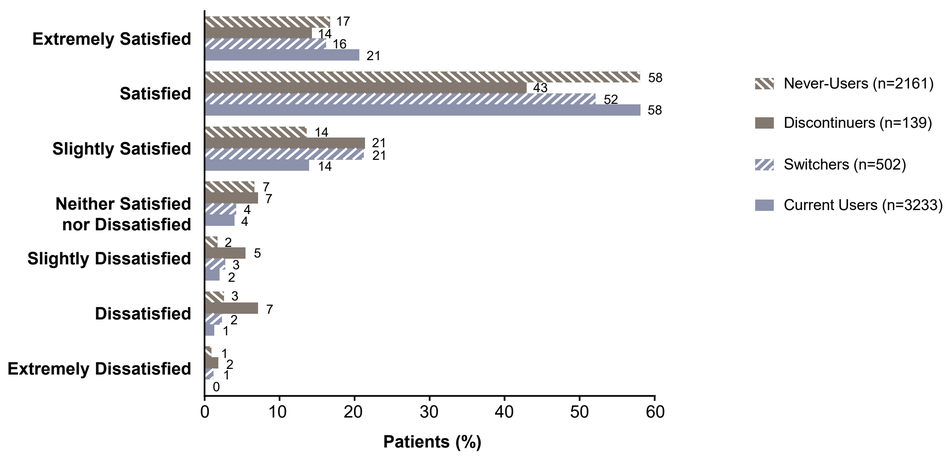
*p<0.01 across 4 triptan user groups by chi-square test; †p<0.001 across 4 triptan user groups by ANOVA; ‡p<0.001 across 4 triptan user groups by Fisher exact test.
[a]Patient-reported severity using scale from 1 (very mild) to 10 (very severe).
[b]Before pain starts, ie, premonitory phase.
Note: N values reflect triptan use groups from physician-completed patient record forms; results are from patient self-completed forms with lower base numbers.
ANOVA=analysis of variance; SD=standard deviation.

**Patients Who Were Not Current Triptan Users Were More Likely to Use NSAIDs, Opioid and Non-Opioid Analgesics, and Ergotamines vs. Current Triptan Users**

| | Not Current Triptan Users (n=2300) | Current Triptan Users (n=3753) |
|---|---|---|
| No current acute medication, n (%)* | 910 (39.6) | — |
| Current acute medication, n (%) | | |
| NSAIDs including combinations* | 964 (41.9) | 528 (14.1) |
| Opioid analgesics including combinations* | 220 (9.6) | 63 (1.7) |
| Non-opioid analgesics including combinations* | 421 (18.3) | 211 (5.6) |
| Ergotamines and derivatives* | 21 (0.9) | 10 (0.3) |

*p<0.001 between user groups by chi-square test.
NSAID=non-steroidal anti-inflammatory drug.

**Patients Who Had Discontinued a Triptan Were Least Satisfied With Their Current Acute Treatment***




*p<0.001 across 4 triptan user groups by Fisher exact test.
Note: N values reflect triptan use groups from physician-completed patient record forms; results are from patient self-completed forms with lower base numbers.

## CONCLUSIONS

- Patients who switched triptans or discontinued their triptan reported a greater burden of migraine on HRQoL
- Triptan use patterns differ considerably between the USA and 5 major European countries (EU5: France, Germany, Italy, Spain, and UK), with the USA having a higher prevalence of triptan use
- Patients who discontinued triptans had the highest rate of treatment dissatisfaction
- Patients who were not current triptan users were more likely to use non-steroidal anti-inflammatory drugs (NSAIDs), opioid analgesics, and ergotamines compared with current triptan users
- This research highlights a need for efficacious alternatives for patients who are not adequately managed by current triptan options

### Limitations

- Cross-sectional nature of the survey
- Study sites were selected according to volume of patients with migraine routinely seen; therefore, physicians were experienced in treating migraine
- Patients were from a diagnosed population and actively seeking medical care, which limits generalization of the results to all patients with migraine
- The number of discontinuers in this study was smaller than has been shown in the literature[1]; this could be due to the limitations in study population described above

EU5=5 major European countries: France, Germany, Italy, Spain, and UK; HRQoL=health-related quality of life; NSAID=non-steroidal anti-inflammatory drug.
1. Wells RE et al. *Headache* 2014;54:278-89.

**Disclosures:** The Adelphi Migraine DSP was an independent survey conducted by Adelphi Real World. Eli Lilly and Company, Indianapolis, USA, subscribed to the dataset from which this analysis is derived.
L Lombard, W Ye, Y Kim, and A Hake are employees and stockholders of Eli Lilly and Company and/or one of its subsidiaries. M Farrar is a former employee and current stockholder of Eli Lilly and Company and/or one of its subsidiaries. S Cotton and J Jackson are employees of Adelphi Real World.
Medical writing assistance was provided by Linda Donnini, PhD, of ProScribe – Envision Pharma Group, and was funded by Eli Lilly and Company.

**Abbreviations:** ANOVA=analysis of variance; DSP=Disease Specific Programme; EQ-5D-5L=EuroQol-5 Dimensions-5 Levels; EU5=5 major European countries: France, Germany, Italy, Spain, and UK; HRQoL=health-related quality of life; MIDAS=Migraine Disability Assessment; MSQ=Migraine-Specific Quality-of-Life Questionnaire; NSAID=non-steroidal anti-inflammatory drug; SD=standard deviation; WPAI=Work Productivity and Activity Impairment.

**Scan for full poster and slide deck**

IHS 2019