Evaluating patterns of acute migraine treatment in the population is an important first step towards optimizing interventions for migraine care. Although prior studies have shown that over 95% of migraine sufferers use acute treatments, only a minority use migraine-specific agents, and overall satisfaction with therapy is low. Patterns of acute medication use by episodic migraine (EM) sufferers in the population have not been well characterized.

**OBJECTIVE**

To describe patterns of acute medication use including: persistence, escalation and de-escalation over a one year period among EM.

**METHODS**

- The AMPP is a longitudinal, prospective, population based, mailed questionnaire study. Respondents were identified in 2004 by screening 120,000 US households to identify 24,000 individuals with severe headache who have since been followed on an annual basis.
- The AMPP survey includes demographics data, headache symptomology which allows for the classification of headache type according to ICHD-2 criteria, headache frequency, and medication use among other data.
- This study included 1,392 respondents to the 2005 survey who met ICHD-2 criteria for migraine in 2005, reported 14 or fewer headache days per month (EM), were taking at least one triptan medication, and provided medication data to both 2005 and 2006 surveys.
- Respondents were asked to identify all medications they “currently” used to treat their “most severe type of headache”.
- Medication categories of interest included: triptans, barbiturate products, opioid products, and ergotamines. 7 triptan medications were considered separately, other medications of interest were analyzed at the class level.
- Patterns of medication use were compared between 2005 and 2006. Patterns of use were classified as:
  - Escalation: ≥1 triptan(s) or other class(es) of medication added in 2006
  - De-escalation: ≥1 triptan(s) or other class(es) of medication discontinued in 2006
- Consistent: no change in medications of interest between 2005 and 2006
- Predictors of escalation or de-escalation were analyzed using logistic regression models.
- Analyses controlled for demographics, headache-related-disability (MIDAS), allodynia (ASC-12), and depression (PHQ-9).

The following rates were found: escalation: N= 201 (14.4%), consistent N= 793 (57.0%), de-escalation N= 398 (28.6%).

**RESULTS**

**Escalation**

- Triptan adherence: 746 (68.44%) of respondents reported taking a triptan medication at least once every other week in 2005 who reported doing so in 2006 (OR=1.82, 95%CI=1.06, 3.12, p=.03). (Tables 1 & 2)
- Odds of de-escalation for depressed subjects were nearly 2.65 times the odds of those without depression (OR=2.65, 95%CI=1.43, 4.9, p=.002). Odds of de-escalation for depressed subjects were nearly 2.65 times the odds of those without depression (OR=2.65, 95%CI=1.43, 4.9, p=.002).
- Multiple logistic regression models evaluating the effect of race, depression, and adherence to therapy showed that African American race and depression were the primary predictors for both escalation and de-escalation.
- **Escalation**
  - American race (OR=2.62, 95%CI=1.60, 4.27, p=.0001). (Table 1)
  - Depression (OR=2.64, 95%CI=1.52, 4.58, p=.0001).
  - Depression was the primary predictor for both escalation and de-escalation in multivariate models. Odds of escalation of those with depression were nearly 2.65 times the odds of those without depression (OR=2.62, 95%CI=1.43, 4.9, p=.002). Odds of de-escalation for depressed subjects were nearly 2.65 times the odds of those without depression (OR=1.82, 95%CI=1.06, 3.12, p=.03). (Tables 1 & 2)

- **De-escalation**
  - American race and depression.
  - Depression (ORs increased with level of depression).
  - Depression related disability (MIDAS).

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**CONCLUSIONS**

- In a cohort of EM sufferers who used at least one triptan for acute treatment from the US population over a one year period:
  - 57.0% remained on the same medication regimen
  - 14.4% escalated and 28.6% de-escalated their acute headache treatment regimens.
  - Predictors of escalation and de-escalation included African-American race and depression.
  - Depression may motivate change in both directions due to dissatisfaction.
  - Protective factors included having health insurance, college or higher education, and higher household income.

**REFERENCES**

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