

Effect of switching migraine preventive SoC treatments on therapeutic response compared to patients treated continuously with erenumab in patients with episodic migraine

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INTRODUCTION

- Current oral migraine preventive treatments are associated with low adherence rates due to a lack of efficacy and/or poor tolerability, resulting in inadequate long-term control of migraine¹
- The choice of treatment is heterogeneous across geographies and highly dependent on both the individual experience of the treating physician and patient profiles
- APPRAISE (NCT03927144), the first global, pragmatic, active-controlled, Phase 4, open-label trial compared two treatment paradigms, erenumab and standard of care (SoC) oral preventive treatments, as used in local clinical practice²
- As previously reported, the APPRAISE study demonstrated the sustained superior efficacy of erenumab compared with oral preventives in patients with episodic migraine (EM) who had previously failed one or two migraine preventives³
 - Significantly more patients remained on the initially assigned treatment and achieved ≥50% reduction of monthly migraine days (MMD) with erenumab compared to SoC preventives
 - Patient retention and patients' perception of improvement with treatment was also significantly greater in the erenumab group than SoC group

OBJECTIVES

- This subanalysis of the APPRAISE study aimed to:
 - Describe the characteristics of patients who switched from the initially assigned treatment and the effect of switching preventive treatments on treatment outcomes
 - Determine if implementing erenumab earlier in the treatment algorithm is associated with reduced switching and better outcomes compared to SoC

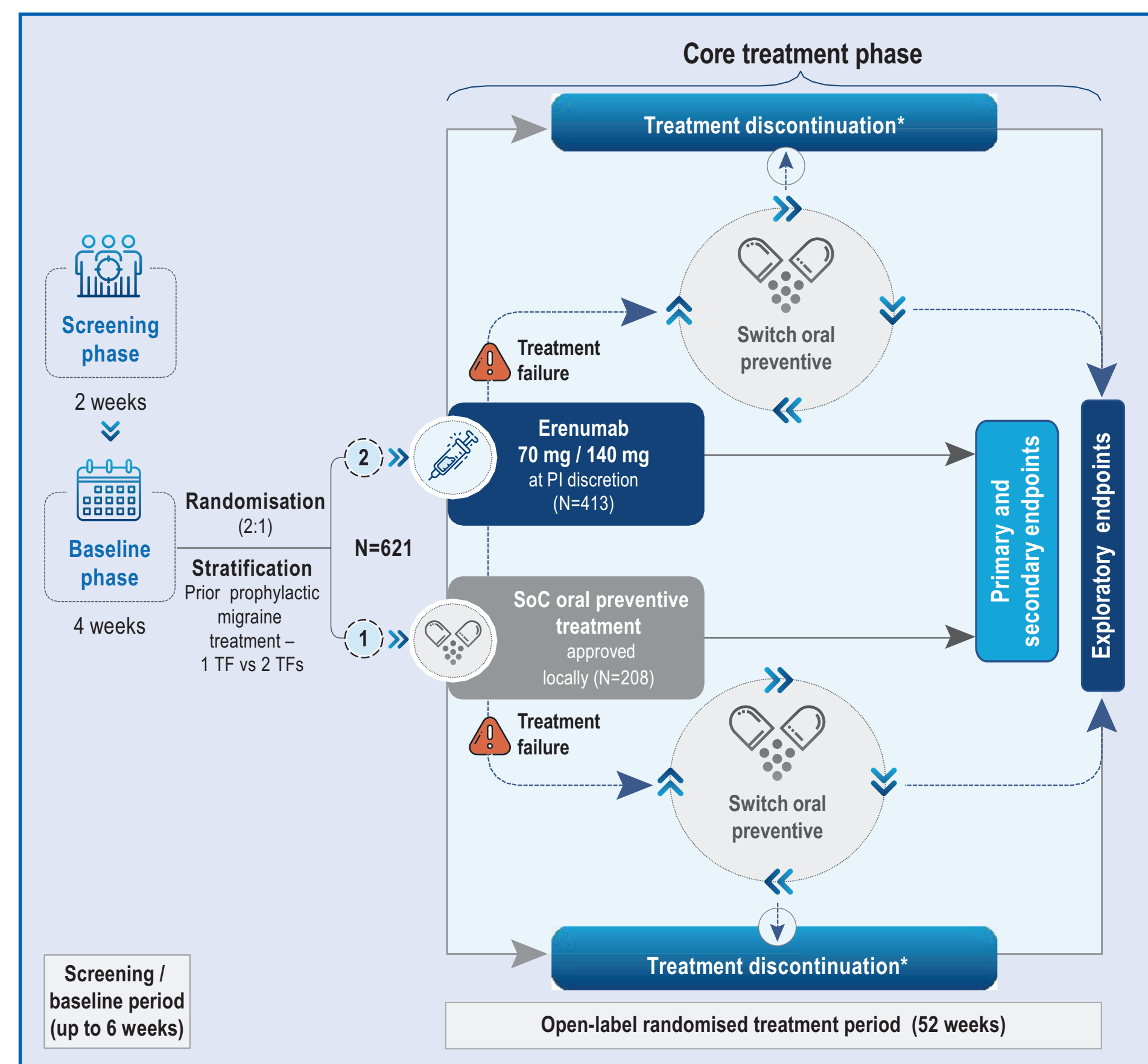
METHODS

- APPRAISE is a 12-month prospective, randomised, active-controlled, Phase 4, open-label trial
- Patients (N=621) aged ≥18 years with EM who had failed one or two previous migraine preventive treatments in the last 6 months due to a lack of efficacy and/or tolerability were randomised (2:1) to receive erenumab monthly or a daily oral preventive treatment as per local treatment guidelines and the physician's choice (Figure 1)
- Treatment switching to locally approved SoC oral preventive treatments was allowed for patients in both arms

Outcome measures

- This subanalysis used data from patients who switched treatment at least once during the trial to assess switching characteristics, the mean number of switches per patient and the relationship of treatment switches to patient outcomes at Week 52

Figure 1. Study Design



*Treatment discontinuation, the subject permanently stopped taking study treatment prior to the defined study treatment completion date. Treatment discontinuation did not imply study discontinuation. Every effort was attempted to ensure patients complete the study visit even if treatment was discontinued. PI, principal investigator; SoC, standard of care; TF, treatment failure

RESULTS

- In total, 86.9% (359/413) of patients in the erenumab arm and 37.5% (78/208) in the SoC arm completed the study on the initially assigned treatment (completers). Overall, 81 patients switched from the initially assigned treatment (switchers): 9 (11.1%) in the erenumab arm and 72 (88.9%) in the SoC arm
- At baseline, the mean (standard deviation [SD]) age of the switchers treated in the study was 40.5 (10.3) years and the majority (87.7%) were women (Table 1)
- Of the 208 patients initially assigned to the SoC arm, 1.9% (n=4) switched to the same treatment category and 32.7% (n=68) to a different category. The mean number (SD) of switches per patient amongst all those who switched from the initially assigned treatment was 1.25 (0.51)

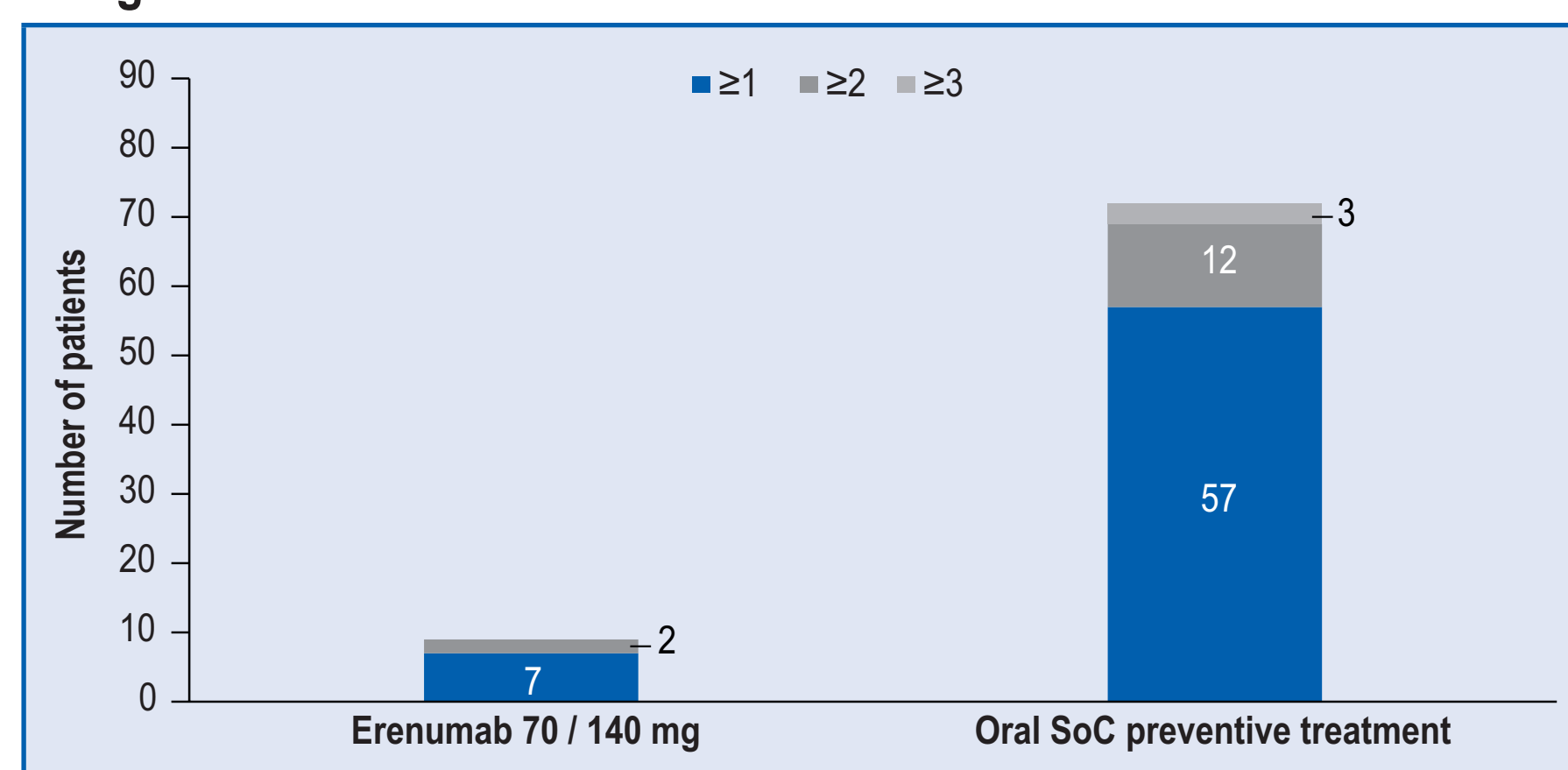
Table 1. Overall demographics for switcher population

Demographics of switchers	Erenumab 70 / 140 mg (N=9)	Oral SoC preventives (N=72)	All patients (N=81)
Age group, n (%)			
<65 years	9 (100.0)	72 (100.0)	81 (100.0)
Age (years), mean (±SD)	37.6 (11.0)	40.8 (10.2)	40.5 (10.3)
Gender, n (%)			
Men	1 (11.1)	9 (12.5)	10 (12.3)
Women	8 (88.9)	63 (87.5)	71 (87.7)
Race, n (%)			
White	9 (100.0)	71 (98.6)	80 (98.8)
Asian	0 (0.0)	1 (1.4)	1 (1.2)
Ethnicity, n (%)			
Hispanic or Latino	0 (0.0)	7 (9.7)	7 (8.6)
Not Hispanic or Latino	9 (100.0)	65 (90.3)	74 (91.4)
Weight (kg), mean (±SD)	75.89 (24.40)	71.36 (15.99)	71.86 (16.98)
Height (cm), mean (±SD)	167.44 (10.03)	168.27 (7.81)	168.18 (8.01)
BMI (kg/m ²), mean (±SD)	27.03 (8.46)	25.11 (4.90)	25.32 (5.37)

BMI, body mass index; SD, standard deviation; SoC, standard of care

- The number of patients with cumulative number of switches ≥1, ≥2 and ≥3 were higher in the SoC arm compared to the erenumab arm (Figure 2)

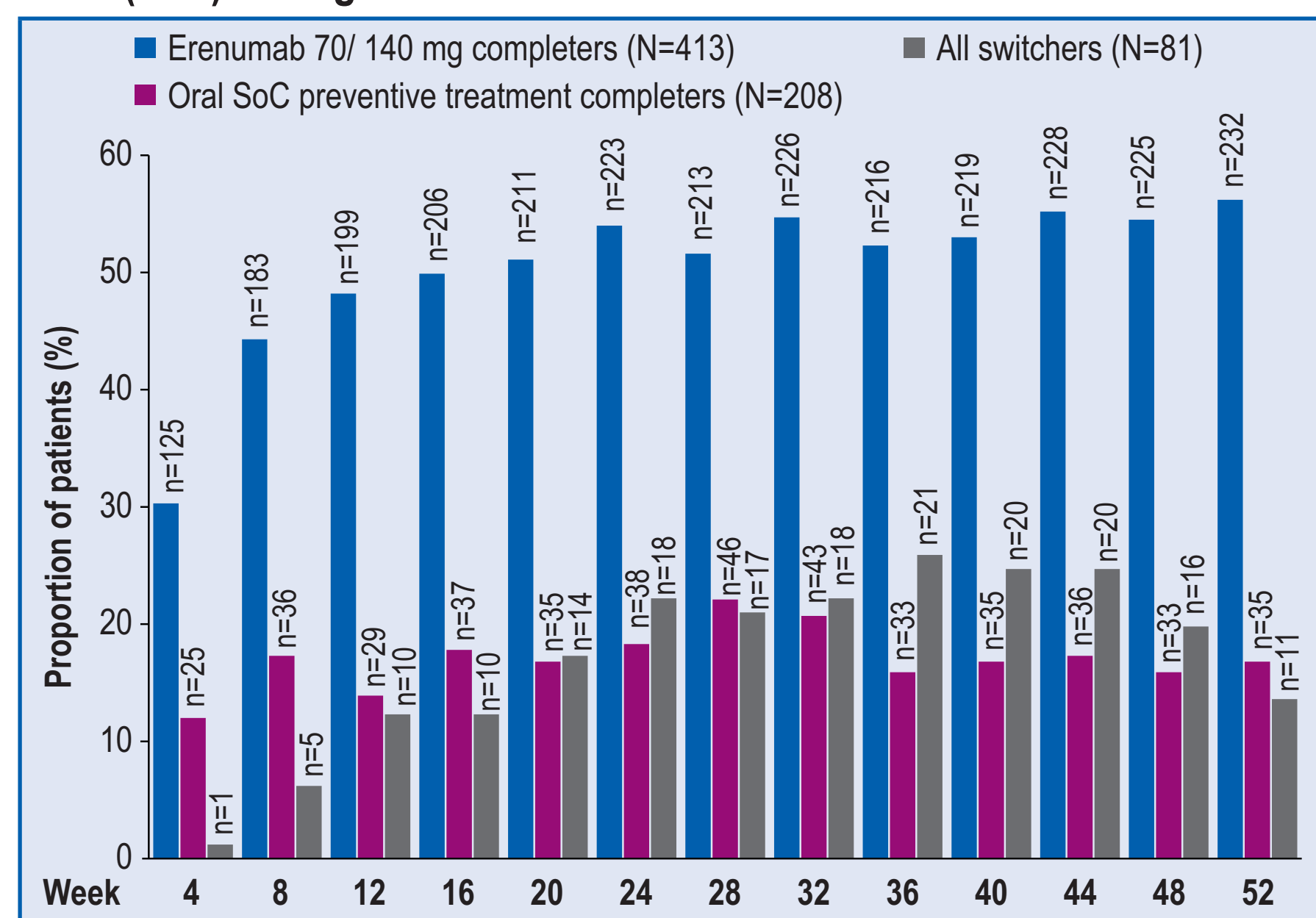
Figure 2. Cumulative number of switches in the erenumab and SoC categories



SoC, standard of care

- Among SoC patients who switched, 36 (50%) did so due to efficacy and 31 (43%) for tolerability reasons
- A greater proportion of patients who were initially assigned to, and continued treatment with, erenumab achieved ≥50% reduction in MMD compared to those who switched treatment from Week 20 through Week 52 (Figure 3)

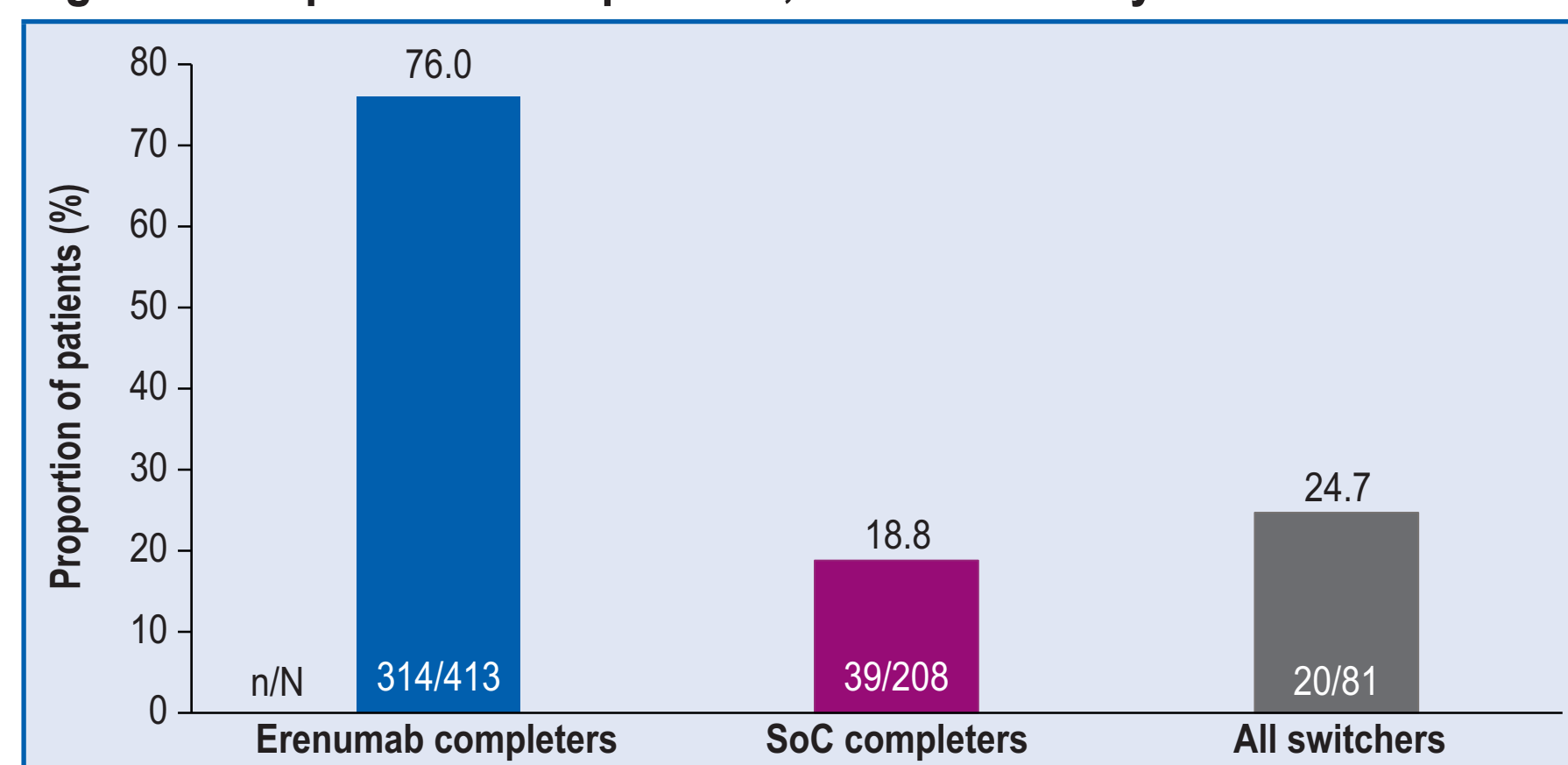
Figure 3. Proportion of patients with ≥50% reduction from baseline in MMD (FAS) through Week 52



n, number of patients with at least 50% reduction from baseline in MMD while on initially assigned treatment at week X; N, the number of patients in initially assigned treatment arm or switchers; FAS, full analysis set; MMD, monthly migraine day; SoC, standard of care

- Early treatment with erenumab showed better outcome, as rated by Patient Global Impression of Change (PGIC) at Week 52
 - Patients who switched treatment reported less improvement, as rated by PGIC, compared to those who continued on initially assigned erenumab treatment (Figure 4)

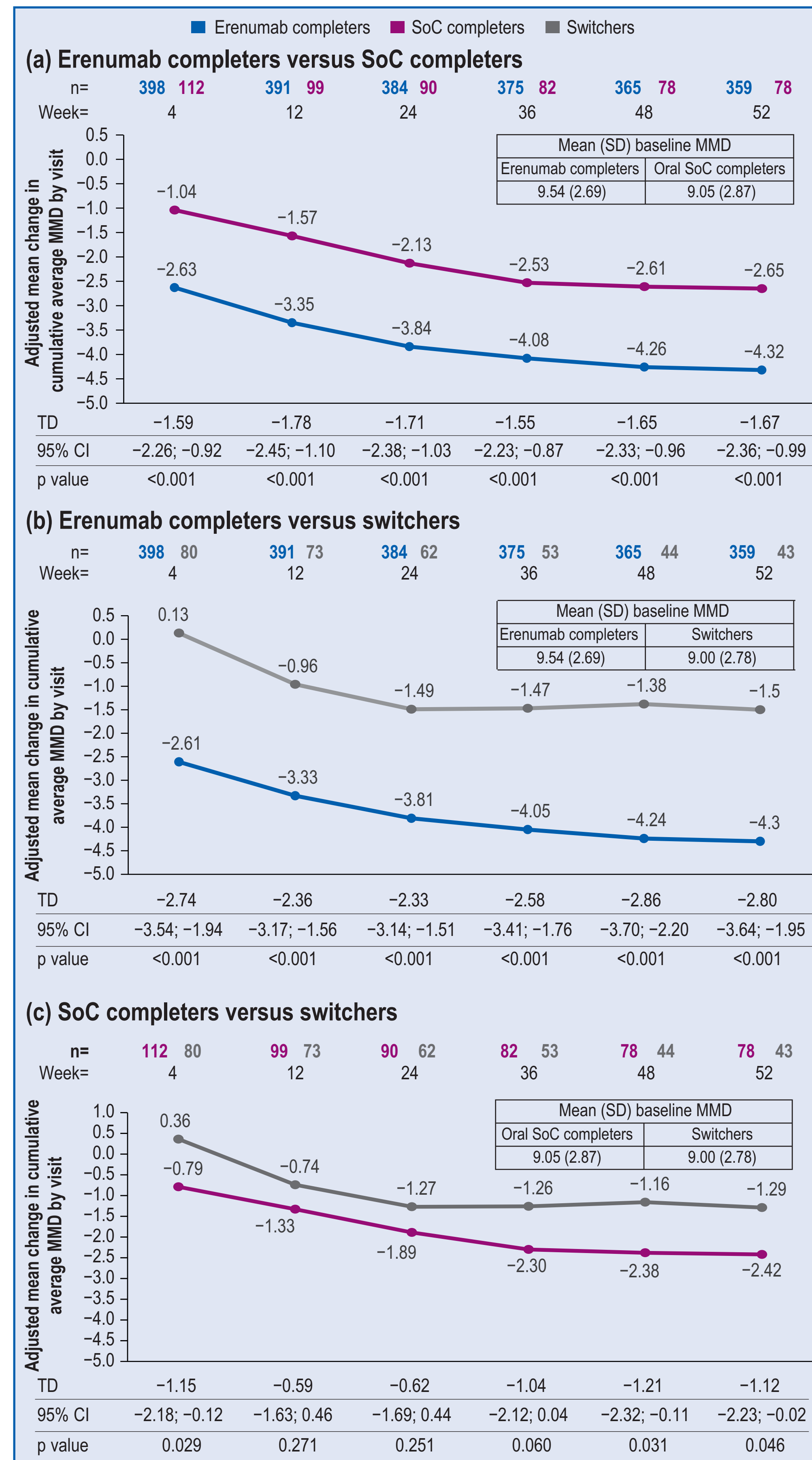
Figure 4. Proportion of responders, as measured by PGIC at Week 52



Patient was considered as a responder if PGIC score was ≥5 at Week 52 on switched treatment. n, the number of responders, as measured by PGIC, on switched treatment at Week 52; N, the number of patients in initially assigned treatment arm or switchers; PGIC, Patient Global Impression of Change; SoC, standard of care

- At Week 52, statistically significant improvements in average cumulative MMD (standard error [SE]) from baseline were reported in:
 - Erenumab completers versus SoC completers (-1.67 [0.35]; p<0.001) and erenumab completers versus switchers (-2.80 [0.43]; p<0.001)
 - No significant difference was observed in SoC completers versus switchers (-1.12 [0.56]; p=0.046) (Figure 5)

Figure 5. Change from baseline in cumulative average MMD by visit through 52 weeks



The linear mixed effects model includes treatment groups, baseline value, stratification factor, scheduled visit and the interaction of treatment group scheduled visit. Unstructured covariance matrix assumed. CI, confidence interval; MMD, monthly migraine day; SD, standard deviation; SoC, standard of care; TD, treatment difference

CONCLUSIONS

- Patients who switched treatment were predominantly from the SoC arm
- Switchers had less favourable outcomes than completers, and patients initially assigned to the erenumab arm were more likely to complete 52 weeks on the initially assigned treatment
- At any time point during the study, the reduction in MMD from baseline was significantly better for erenumab completers compared to both SoC completers and switchers
- The results of this subanalysis of the APPRAISE study suggest that implementing erenumab earlier in the treatment algorithm can reduce switching of preventive treatments while also improving efficacy outcomes compared to SoC oral preventive treatment

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