Diroximel fumarate in patients with relapsing-remitting multiple sclerosis: **Final safety and efficacy results from the phase 3 EVOLVE-MS-1 study**

Barry A. Singer, Douglas L. Arnold, Jelena Drulovic, Mark S. Freedman, Ralf Gold, Mark Gudesblatt, Elzbieta Jasinska, Christopher C. LaGanke, Robert T. Naismith, Donald Negroski, Jiwon Oh, Miguel Angel Hernandez Perez, Krzysztof Selmaj, Florian Then Bergh, Annette Wundes, Tjalf Ziemssen, Wanda Castro-Borrero, Hailu Chen, Seth Levin, Matthew Scaramozza, Sai L. Shankar, Ting Wang, Sibyl Wray

STUDY BACKGROUND

- **Diroximel fumarate** (DRF) is an oral fumarate for adult patients with relapsing forms of multiple sclerosis (MS)
- DRF has the same pharmacologically active metabolite as dimethyl fumarate (DMF)
- DRF demonstrated **improved gastrointestinal (GI) tolerability** compared with DMF in the phase 3 EVOLVE-MS-2 study of patients with relapsing-remitting MS (RRMS)

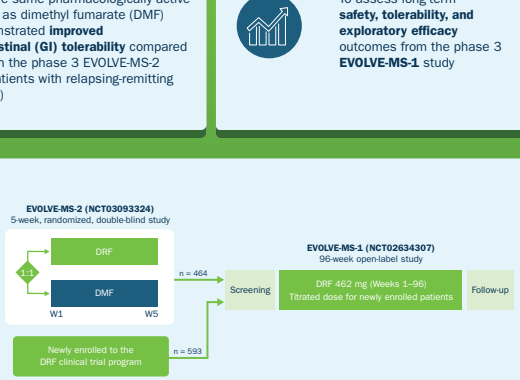
WHY THIS STUDY WAS CARRIED OUT

- To assess long-term **safety, tolerability, and exploratory efficacy** outcomes from the phase 3 **EVOLVE-MS-1** study

STUDY DESIGN

EVOLVE-MS-1:
- Open-label, single-arm study
- Assessed long-term safety, tolerability, and efficacy of DRF

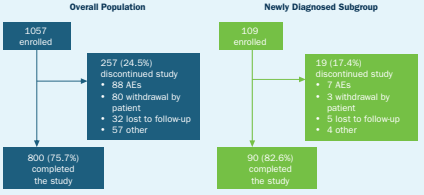
EVOLVE-MS-1 key eligibility criteria
- 18–65 years old
- Confirmed RRMS diagnosis
- No history of clinically significant recurring or active GI symptoms within 3 months of screening
- Neurologically stable with no evidence of relapse in the 30 days before screening
- Prior DMT use was permitted



BID = twice daily; DMF = dimethyl fumarate; DMT = disease-modifying therapy; DRF = diroximel fumarate; GI = gastrointestinal; RRMS = relapsing-remitting multiple sclerosis; W = week

PATIENTS

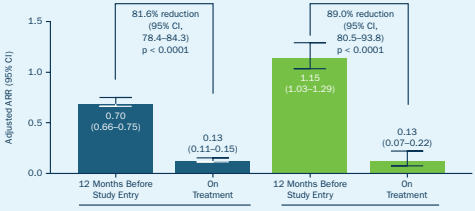
- 1057 patients were enrolled in EVOLVE-MS-1 and received ≥1 dose of DRF
  - 109 were newly diagnosed (<1 year since MS diagnosis and treatment naive)
- Mean (standard deviation) age was 42.5 (10.8) years
- 72.1% (*n* = 762) of patients were female
- Median (range) duration of DRF exposure was 1.8 (0.0–2.0) years



AE = adverse event

RESULTS

- Overall adjusted ARR was significantly reduced on DRF versus 12 months before study entry



ARR = annualized relapse rate; CI = confidence interval

- There were 85 (8.0%) adverse events (AEs) leading to discontinuation
  - 7 (0.7%) patients discontinued due to GI AEs
  - 8 (0.8%) patients discontinued due to flushing/flushing-related AEs
  - 19 (1.8%) patients discontinued due to serious AEs

WHAT WAS LEARNED

Over the 96-week treatment duration in the phase 3 EVOLVE-MS-1 study, DRF was associated with an **acceptable safety and tolerability profile** and **favorable efficacy outcomes**, supporting that DRF is a valuable option for treatment of patients with RRMS.