Baseline Characteristics From ENGAGE and EMERGE: Two Phase 3 Studies to Evaluate Aducanumab in Patients With Early Alzheimer’s Disease

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Objective: We describe baseline characteristics from ENGAGE (NCT02477800) and EMERGE (NCT02484547), ongoing Phase 3 studies of similar designs evaluating aducanumab in patients with early AD (MCI due to AD or mild AD dementia).

Background: Aducanumab is a human monoclonal antibody that binds to both soluble and insoluble aggregated forms of Aβ, including oligomers, protofibrils, and fibrils. ENGAGE and EMERGE are randomized, placebo-controlled, multinational Phase 3 studies evaluating the efficacy and safety of aducanumab in patients aged 50-85 years who meet clinical criteria for MCI due to AD or mild AD dementia.

Design/Methods:
Key inclusion criteria included positive amyloid PET scan, MMSE score of 24-30, CDR-G of 0.5, and an RBANS-DMI score ≤85. During the 18-month placebo-controlled period, patients are randomized 1:1:1 to low-dose aducanumab (titration to 3 or 6 mg/kg based on ApoE ε4 carrier status), high-dose aducanumab (titration to 10 mg/kg), or placebo; administration was iv infusion every 4 weeks. After completion of the placebo-controlled period, patients may enter a long-term extension during which all patients receive aducanumab. The primary endpoint for ENGAGE and EMERGE is change from baseline at week 78 on the CDR-SB. Secondary endpoints include change from baseline on MMSE, ADAS-Cog13, and ADCS-ADL-MCI.

Results:
ENGAGE and EMERGE are now fully enrolled; 1647 (ENGAGE) and 1638 (EMERGE) patients were randomized and received ≥1 dose of study medication. Approximately half the patients in both studies were women (52.4%, ENGAGE; 51.5%, EMERGE). The majority of patients in both trials were diagnosed with MCI due to AD at baseline (80%, ENGAGE; 82%, EMERGE). MMSE mean (standard deviation [SD]) score at baseline was 26.4 (1.76) for ENGAGE and 26.3 (1.72) for EMERGE.

Conclusions: Baseline characteristics are similar across the ENGAGE and EMERGE trials and are representative of patients with early AD.