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Target Congress: 2022 CMSC Annual Meeting in Fort Washington, Maryland on June 1-4, 2022

Abstract **Submission Deadline**: January 31, 2021 at 11:59 EST.

Word Count: 2,400/2,500 characters (including spaces, excluding disclosures); The title may not exceed **250 characters including spaces** (Title=116 characters)

Real-World Utilization of Ofatumumab for Treatment of Multiple Sclerosis (MS): Trends Nine Months after FDA Approval

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Background: Ofatumumab (OMB) received FDA approval on Aug 2020 as the first B-cell therapy to be self-administered by a once-monthly subcutaneous autoinjector pen for relapsing forms of MS. This study provides the first comprehensive look at OMB initiation, over the first 9 months after FDA approval, using a nationally representative claims database.

Objective: To describe patient demographic and clinical characteristics, and prior disease modifying therapy (DMT) use among MS patients initiating OMB at 3, 6, and 9 months after FDA approval.

Methods: This was a retrospective cohort study using IQVIA open-source US claims database. Adult patients with a diagnosis of MS, and a prescription of OMB from Aug 2020 to May 2021, were included. Index date was defined as the first OMB prescription claim. DMT-naïve patients were defined as no DMT prescribed 12 months prior to index date (baseline period). Separate analyses were conducted at 3 months (Oct 2020), 6 months (Feb 2021) and 9 months (May 2021) after FDA approval.

Results: The number of patients initiating OMB increased from 243 at 3 months to 2,101 at 9 months. At 3 months after FDA approval, mean (standard deviation, SD) age was 47.6 (12.2) years, 21.4% were ≥ 55 years old, and 74.5% were female. The proportion of DMT-naïve patients was 46.9%. Ocrelizumab (OCR, 20.2%) was the most common

DMT used before initiating OMB, followed by dimethyl fumarate (DMF, 18.6%), and teriflunomide (TRF, 17.8%), with median time from last DMT claim to OMB initiation being 168, 48, 34 days, respectively.

At 6 months after FDA approval, mean age was 48.2 (12.3) years, 32.7% were ≥ 55 years old, and 72.5% were female. The proportion of DMT-naïve patients was 54.8%. OCR (24.0%) was the most common DMT used before OMB, followed by DMF (20.5%) and TRF (13.5%), with median time from last DMT claim to OMB initiation being 174, 62, 51 days, respectively.

At 9 months after FDA approval, mean age was 48.3 (12.2) years, 33.4% were ≥ 55 years old, and 74.0% were female. The proportion of DMT-naïve patients was 58.4%. OCR (23.3%) was the most common DMT used before OMB, followed by DMF (17.5%) and TRF (15.2%), with median time from last DMT claim to OMB initiation being 179, 63, 64 days, respectively.

Conclusion: OMB use over time appeared to increase in DMT-naive patients and are beyond trial population in real world. Future studies on long-term effectiveness of OMB vs. other DMTs are needed.

Submission requirements

Presentation preference*

✓ Oral or eposter presentation

Disclosures

- **Chinmay Deshpande, and Qiujun Shao** are employees of Novartis Pharmaceuticals Corporation
- **Magdaliz Gorritz, Rolin L. Wade, Zifan Zhou, and Subhan Khalid** are employees of IQVIA Inc. and worked as consultants to Novartis Pharmaceuticals Corporation
- **Dr. Coyle** has received consulting fees from Accordant, Biogen, Bristol Myers Squibb, Celgene, Genentech/Roche, GlaxoSmithKline, Janssen, Novartis, Sanofi Genzyme, Viela Bio and grant funding from Actelion, Alkermes, Corrona LLD, Genentech/Roche, MedDay, NINDS, and Novartis.