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**Material(s) and Method(s):** The study was conducted on patients with confirmed diagnosis of multiple sclerosis (MS) as defined by the Revised McDonald Criteria (2015) from Nov 2019 to Nov 2020. They were ambulatory with a EDSS of 0 to 5.5, and their treatment by Teriflunomide 14 mg was just started. Study outcomes included patients' satisfaction was measured by Treatment Satisfaction Questionnaire for Medication [Version 1.4] (TSQM) at baseline and week 24, disability status measured by Expanded Disability Status Scale [EDSS] score at baseline and week 24, safety and tolerability evaluated over 6 months.

**Result(s):** Of 200 patients enrolled, 100 patients completed the study protocol and evaluated. Patients reported significant improvements in treatment satisfaction scores of convenience and side effects domains of TSQM scores at week 24 following the switch to teriflunomide (Effectiveness: baseline, 66.53, Week 24, 68.97; Convenience: baseline, 66.31, Week 24, 78.97; Side effect: baseline, 67.13, Week 24, 75.60; Overall Satisfaction: baseline, 63 Week 24, 65.42;  $P < 0.001$  in all comparisons). The most common adverse drug reactions were hair thinning (36%), dermatologic (17%), gastrointestinal (23%), liver function test (LFT) dysfunction (11%), and neurologic side effects (9%) which rarely caused treatment discontinuation.

**Conclusion(s):** Patients reported significant satisfaction regarding TSQM scores after switching to Tebazio at week 24 which can be impressive to increase patient compliance. The 14 mg brand-generic Teriflunomide product was well tolerated in Iranian RRMS patients and no new alarming signal was detected during the study period.

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### Real-world experience on the use of COVID-19 vaccination in patients with multiple sclerosis treated with Cladribine tablets in the Gulf region

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**Background:** The Gulf nations were among the first in the world to implement the COVID-19 vaccination. Regional guidelines like MENACTRIMS endorse that MS patients should be vaccinated against COVID-19. The vaccines being offered in the region include Sinopharm,

Pfizer-BioNTech, Sputnik V, and Oxford-AstraZeneca. "Adveva™ Gulf is a Merck-sponsored health care provider (HCP) driven patient support program (PSP) for patients treated with cladribine tablets"

**Objectives:** To describe the real-world experience on the use of COVID-19 vaccination in multiple sclerosis (MS) patients treated with cladribine tablets participating in the PSP.

**Methods:** MS patients treated with cladribine tablets and participating in the PSP in the Gulf region were asked to participate in a questionnaire-based survey about their COVID-19 vaccination status. The interview was initiated by health educators over the phone, and they submitted the answers on the patient's behalf. Patient's verbal consent was required to start the questionnaire. Information collected included: Demographic, Treatment dates, Vaccination, and COVID-19 information.

**Results:** Of the 106 MS patients, 92 (86%) patients provided consent to participate and completed the questionnaire. 77.5% of patients were females. All patients had been on cladribine tablets since 2018-till Sept 2021 (66% in Year 1, 15% in Year 2, and 19% in year 3 and 4). From the time of initiation of cladribine tablets, no switch to another disease modifying drugs (DMD) were observed. Overall, 74 (80.4%) of the cladribine tablets patients had received the COVID-19 vaccine. 51.4% and 41.9% of patients were vaccinated by the Pfizer and Sinopharm vaccines, respectively. Among those vaccinated in Year 1 and 2 (n=59), the mean time between the last dose of cladribine tablets and the first dose of the vaccine was 129 days. Of the patients who had not received the vaccine (n=18), 72.2% were planning to receive the vaccine. Only 2 patients were not willing to receive the vaccine for fear of complications. After completion of the COVID-19 vaccine regimen, 6 (8%) patients were infected with SARS-CoV-2, 5 of them confirmed by the RT-PCR test. All the cases were mild, and none of the patient's required hospitalization. No safety concerns were reported after the administration of the COVID-19 vaccine. The mean time from the completion of the vaccine series till the development of the SARS-CoV-2 infection was 79 days.

**Conclusions:** The outcomes of this survey suggest that the use cladribine tablets didn't hinder the patients from receiving COVID-19 vaccinations. Few patients developed SARS-CoV-2 infection despite being vaccinated, but all had mild disease and did not require hospitalization. No safety concerns were observed. Continuous monitoring will be required to assess the safety and efficacy of the COVID-19 vaccine in this specific population. Meanwhile, MS patients should be encouraged to receive COVID-19 Vaccination.

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