



HAL
open science

Barriers to Access Multiple Sclerosis Disease-Modifying Therapies in Middle East and North Africa: A Regional Survey-Based Study

Maya Zeineddine, Farid Boumédiène, Amal Al-Hajje, Pascale Salameh, Anne Helme, Michael Thor, B. Yamout

► **To cite this version:**

Maya Zeineddine, Farid Boumédiène, Amal Al-Hajje, Pascale Salameh, Anne Helme, et al.. Barriers to Access Multiple Sclerosis Disease-Modifying Therapies in Middle East and North Africa: A Regional Survey-Based Study. 38 th Congress of the European Committee for Treatment and Research in Multiple Sclerosis, Oct 2022, AMSTERDAM, Netherlands. hal-04074126

HAL Id: hal-04074126

<https://hal-unilim.archives-ouvertes.fr/hal-04074126>

Submitted on 19 Apr 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Barriers to Access Multiple Sclerosis Disease-Modifying Therapies in Middle East and North Africa: A Regional Survey-Based Study

M. Zeineddine¹, F. Boumediene¹, A. Al-Hajje², P. Salameh², A. Helme³, M.G. Thor³, B. Yamout⁴

¹Limoges University, Institut De Neurologie Tropicale, Limoges, France, ²Lebanese University, Beirut, Lebanon, ³Multiple Sclerosis International Federation, London, United Kingdom, ⁴Harley Street Medical Center, Neurology Institute, Abu Dhabi, United Arab Emirates

Background

- Multiple Sclerosis International Federation (MSIF) Atlas recorded an increase in the prevalence of multiple sclerosis (MS) in Middle-Eastern countries from 24 per 100,000 to 33 per 100,000 between 2013 and 2020.
- Moreover, epidemiological studies from the Middle East and North Africa (MENA) region showed a rising MS prevalence during the first two decades of the 21st Century.
- Despite shifting of the MENA region from low to moderately-high risk zone for MS, the management of the disease still varies markedly between different countries based on disease-modifying therapies (DMTs) availability, accessibility, and reimbursement.
- In general, introduction of novel DMTs in most MENA countries is usually delayed, as drug approval can take several months to years once approved for use by the Food and Drug Administration (FDA) or European Medicines Agency (EMA), depending on the country.

Objective

In order to gain better understanding of treatment accessibility and explore potential common areas of need in our MENA region, we carried an in-depth analysis of the Arab region Atlas of MS data, compiled by the MSIF, focusing on accessibility to originators and off-label DMTs in each country and identifying barriers to MS treatment.

Methods

- This is a descriptive, survey-based study whereby we extracted data collected between October 2019 and April 2020 for countries in the MENA region by the MSIF through their Atlas of MS online survey.

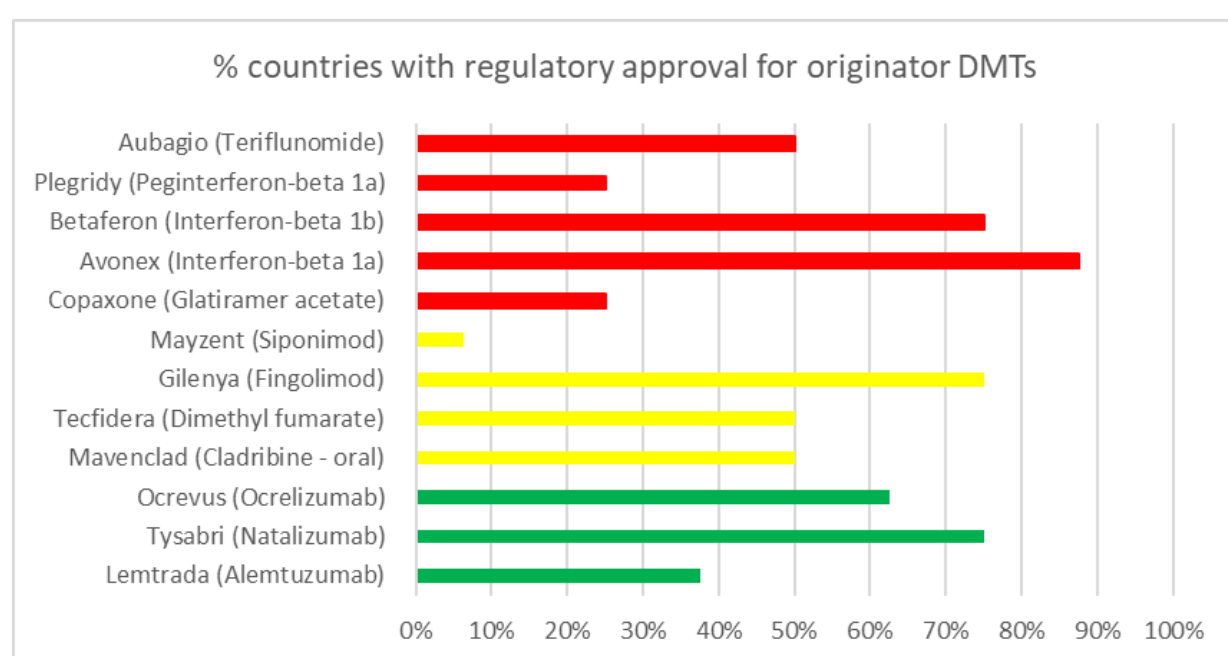
Results

- 16 out of 19 countries in the MENA region were included in this study: Algeria, Egypt, Iraq, Lebanon, Libya, Morocco, Palestine Sudan, Syria, Tunisia, Yemen, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates (UAE).

Regulatory Approval of DMTs in the MENA region

Figure 1. Percentage of MENA countries with regulatory approval for originator DMTs.

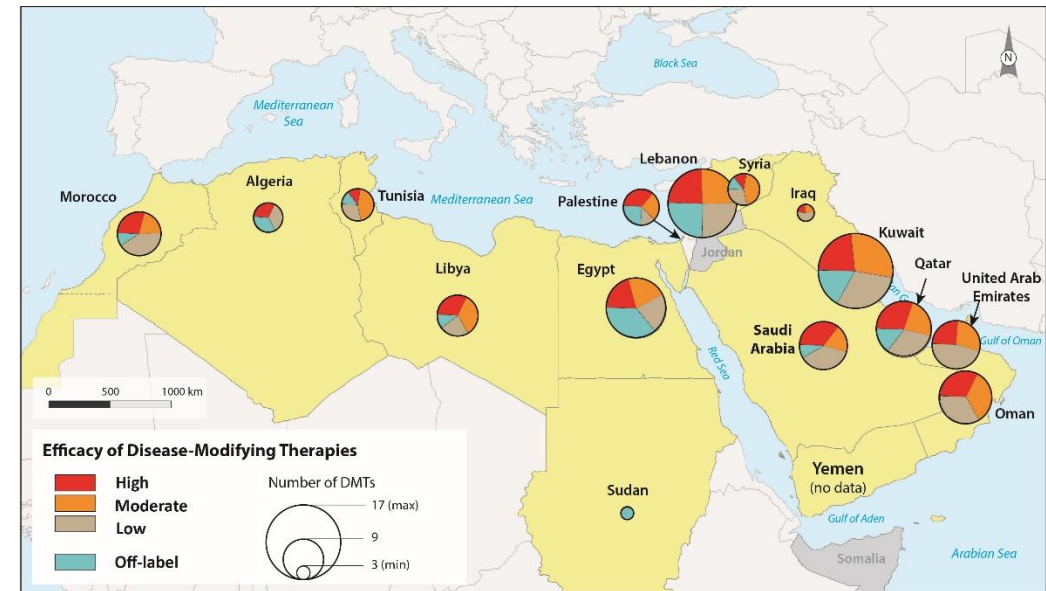
Green = High efficacy; Yellow = Moderate efficacy; Red = Low efficacy



Conclusion

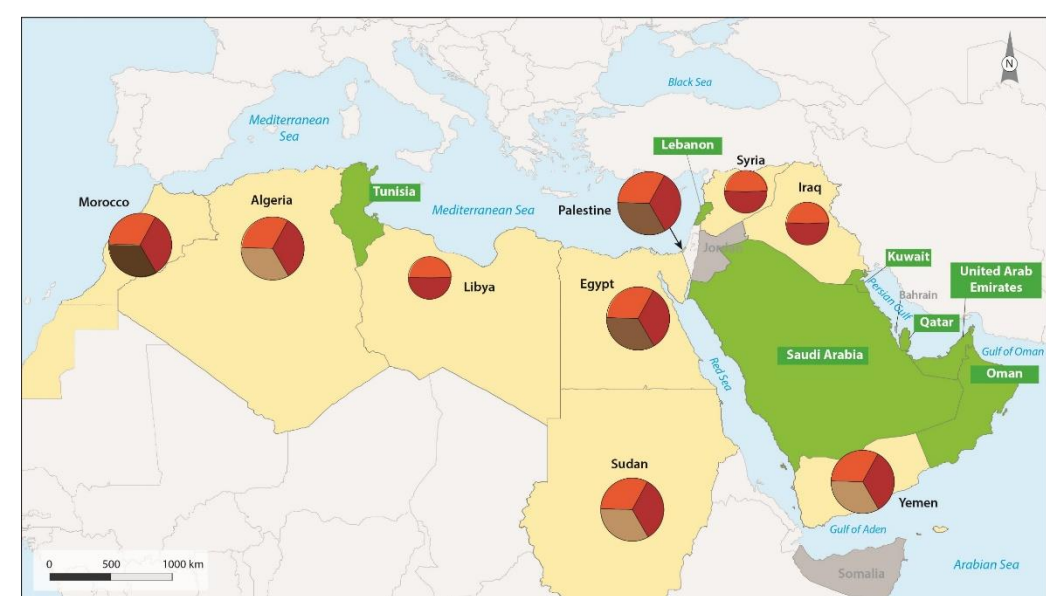
- Most MENA countries have access to DMTs, including high-efficacy DMTs.
- More than half of MENA countries report problems with treatment continuation with cost being the major barrier to treatment.
- The number of barriers to treatment correlates with the Gross National Income (GNI) per capita – richer countries have fewer barriers to treatment.
- This study highlights unequal access to treatment across the MENA region; therefore, there is an urgent need to improve access to DMTs in lower resource settings where there are barriers to improve health outcomes for patients with MS.

Use of On- and Off-Label DMTs in the MENA region



Countries	DMTs																						
	Alemtuzumab	Natalizumab	Ocrelizumab	Ribavirin	Cladribine (IV)	Cladribine (oral)	Dimethyl fumarate	Fingolimod	Siponimod	Glatiramer acetate	Interferon-beta 1a	Interferon-beta 1b	Peginterferon-beta 1a	Teriflunomide	Asatropine	Cyclophosphamide	Fludrabine	Fumaderm	Leflunomide	Methotrexate	Minocycline	Mitomycin	
Algeria																							
Egypt																							
Iraq																							
Lebanon																							
Libya																							
Morocco																							
Palestine																							
Sudan																							
Syria																							
Tunisia																							
Kuwait																							
Oman																							
Qatar																							
Saudi Arabia																							
United Arab Emirates																							

Continuous Access to DMTs after Treatment Initiation



Barriers to Treatment

