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Economic Burden of Multiple Sclerosis on Kuwait Healthcare System

Raed Alroughani¹, Maryam Al-Owayesh², Samar Ahmed³, Jasem Al-Hashel²

¹Amiri Hospital, Kuwait, Kuwait; ²Kuwait University, Kuwait, Kuwait; ³Ibn Sina Hospital, Kuwait, Kuwait

Background: Multiple sclerosis (MS) is a chronic neurological disease with heavy economic and social burdens resulting in significant disability and social dependence. The prevalence of MS is in an upward trend in Kuwait reaching 85.05/100,000 in 2011.

Methods: A cross-sectional study using Kuwait National MS registry was conducted to estimate the costs of utilization of resources. Data of patient demographics, clinical features, and diagnostic/ therapeutic utilizations between 2011 and 2015 were extracted. This study aims to measure the cost of health resources' utilization by patients with MS and to examine the difference in utilization and its attributed costs among patients with different types of MS and Expanded Disability Status Scale (EDSS) scores. Kruskal– Wallis test was used to examine the difference between costs in different types of MS and EDSS scores.

Results: By end of 2015, 1344 patients with MS were included in the registry, of which 75.9% were of relapsing–remitting (RR) form and 83.3% had EDSS scores =3. The average annual cost per patient with MS has increased from 4532 KD in 2011 to 6753 KD in 2015. Utilization of disease-modifying therapies (DMTs) was the main driver of costs reaching 89.9% in 2015. The number of treated patients increased by 12.7% due to the availability of oral DMTs. Throughout the 5-year period, relapse severity decreased as the proportion of relapses treated in ambulatory settings increased by 5.8% while hospitalizations decreased by 2.6%. There was a significant difference between the average cost per patient in different types of MS and different EDSS categories ($p < 0.0001$), with patients with RR course and moderate EDSS score (3.5–6) having the highest average of 7144 KD and 10,544 KD, respectively.

Conclusion: MS has a significant economic burden on the Kuwait healthcare system. DMTs seem to be the main driver of cost.