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MS, Comorbidity and deprivation

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Objectives

The UK MS Register (UKMSR) has collected patient reported outcome data from people with MS (pwMS) for over 13 years. Multi-morbidity is an area of growing interest in disease epidemiology and its interaction with deprivation is still evolving. Aim: to analyse the UKMSR population and describe the interaction between comorbidity and deprivation.

Method

We linked Office of National Statistics (ONS) Lower Super Output Areas (LSOA) area codes to UKMSR demography as of February 2025, enabling us to group participants by indices of multiple deprivation (IMD) quintiles. We compared demographics and disease characteristics, as well as comorbidities.

Results

Across the 5 quintiles (IMD categories 1-5, 1 being most deprived and 5 being least deprived) gender ratio became more male (1=24.9%, 5=27.0%), mean age increased (1=55.3, 5=60.6), with more progressive MS (1=38.3%, 5=47.4%) in less deprived regions. In terms of employment, more people were permanently sick or disabled in more deprived areas (1=30.7%, 5=16.5%) and more were retired in less deprived areas (1=17%, 5=34.4%). There were more mean comorbidities in the most deprived population (1=1.84, 5=1.49, $p<.001$). 28.6% of pwMS in the most deprived areas had more than 3 comorbidities compared to 20.6% in the least deprived.

Conclusion

Our results suggest that comorbidity burden increases with greater levels of deprivation. This highlights the need to address health inequalities in MS care and warrants further investigation.



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