

Mortality trends from Multiple Sclerosis in Italy during the period 1980-2015

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BACKGROUND: Reviews of current literature on prevalence and incidence of MS have shown increasing trends but these data may have some limitations being not routinely collected and covering often only a small area for a short period.

On the contrary, mortality data cover the whole population and they are collected in a standardized and routinely manner, so they are useful to estimate temporal trends.

AIMS: To analyze mortality trends for MS in Italy from 1980 to 2015 and to evaluate the eventual geographical differences.

METHODS: Mortality data were provided by Italian Institute of Statistics. Temporal trend was evaluated through age-adjusted mortality rates (AMR) and the annual percent change (APC) applying the joinpoint regression model. The Standardized Mortality Ratios were calculated to compare mortality between geographical areas.

RESULTS: During the study period, 4,959 deaths for males and 7,434 for females were observed. The higher overall AMRs were observed for females (F:0.71 vs. M: 0.56).

The trend analysis showed a significant decrease in mortality up to the year 1995 (APC -3.23%) for males and up to 1999 for females (APC -1.01%), followed by a significant increase in both sexes (APC +1.9% in males, +2.34% in females).

CONCLUSIONS: The decrease in mortality in the first period was consistent with a previous study from 1974 to 1993. For subsequent years there are no published data relating to MS mortality in Italy, but the increase after 2000 may reflect the raising prevalence and incidence observed in many countries, or it can also reflect the improvement in the quality of codification of the cause of death. Important differences were observed between Italian geographic areas. The main limitations of this study were the low accuracy of death certificate and the impossibility of tracing back to clinical cases to confirm the cause of death.