Approach to assessing and using clinical practice guidelines

Clinical practice guidelines are produced in ever-increasing numbers by the American Academy of Neurology (AAN) and other developers, with over 1,000 guidelines currently in the National Guideline Clearinghouse. Knowing when to use guidelines in clinical practice requires neurologists to assess the rigor of published guidelines and understand how guideline recommendations are best applied in individual patient encounters. This review briefly describes guideline definitions and the AAN process for guideline development, outlines key elements for assessing guideline quality, and details a practical approach for incorporating guideline recommendations when partnering with patients in shared decision-making.

Lower prevalence of multiple sclerosis in First Nations Canadians

**Background** We compared the incidence and prevalence of multiple sclerosis (MS) between First Nations (FN) and non-FN populations in Manitoba.

**Methods** We applied previously validated algorithms to population-based administrative (health claims) data from Manitoba, Canada, to identify all persons with MS from 1984 to 2011. We identified FN individuals using the Municipality of Registration field held at Manitoba Health. We compared the incidence and prevalence of MS between the FN and non-FN populations using negative binomial models.

**Results** From 1984 to 2011, 5,738 persons had MS, of whom 64 (1.1%) were of FN ethnicity. The average annual incidence rate per 100,000 population was 8.15 (95% confidence interval [CI] 5.98–11.1) in the FN population and 15.7 (95% CI 15.1–16.3) in the non-FN population (incidence rate ratio 0.52; 95% CI 0.38–0.71). In 1984, the crude prevalence of MS per 100,000 population was 35.8 (95% CI 14.9–86.1) in the FN population and 113.3 (95% CI 106.3–120.8) in the non-FN population. Between 1984 and 2011, the age-standardized prevalence of MS increased by 351% to 188.5 (95% CI 146.6–230.4) in the FN population. In contrast, the prevalence of MS per 100,000 general population increased by 225%–418.4% (95% CI 405.8–431.0).

**Conclusions** The incidence and prevalence of MS are twofold lower in the FN population than the non-FN population. Nonetheless, the prevalence of MS in FN Manitobans is higher than in other indigenous populations outside Canada. Given reports of more rapid disability progression among FN Canadians with MS, and the rising prevalence of MS in this population, attention should be directed to the needs of this population.
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Neurology 2018;90:648
DOI 10.1212/WNL.0000000000005270

This information is current as of April 2, 2018

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