

SEASONAL VARIATION IN MORTALITY FROM STROKE IN ENGLAND AND WALES, 1997 – 2005

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Background and aims: Seasonal variation in disease events has been widely reported and it has been described as being worse in Britain. Few studies have been done to examine seasonal variation in specific diseases. The aim of this study was to determine if there was a seasonal variation in mortality from stroke in England and Wales.

Methods: This study used mortality data for stroke from 1997 to 2005. The dataset consisted of all deaths in England and Wales whose underlying cause was due to stroke during the time period. Excess winter deaths for each year were determined by comparing the mortality count in the winter (December - March) and the non-winter months (preceding August – November and successive April - July). A comparison of the winter mortality ratio between the age-bands was also done.

Results: There was a pattern of increased mortality in the winter season for each of the years reviewed, which is in keeping with the pattern existing literature had described for mortality from all causes combined. This study also found that each year, there were around 3,100 excess winter deaths due to stroke and this is 20% more than expected during the winter season. An association was also found between winter mortality ratio and advancing age.

Conclusion: The results suggest that excess winter mortality due to stroke in England and Wales is substantial. In addition to general measures used to reduce excess winter mortality, interventions aimed at reducing excess winter mortality due specifically to stroke may be worthwhile.

References:

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