CORRESPONDENCE

The Projected Burden of Stroke in the German Federal State of Hesse up to the Year 2050

by Dr. med. Christian Foerch, Dr. med. Bjoern Misselwitz,
Prof. Dr. med. Matthias Sitzer, Prof. Dr. med. Helmuth Steinmetz,
PD Dr. med. Tobias Neumann-Haefelin in volume 26/2008

Blunt Projections

Foerch et al draw our attention to rising incidence rates of stroke up to 2050. On the basis of projections of the state statistical office for Hesse, they conclude that in view of our ageing population, the incidence of stroke will almost double by 2050. An increase is expected mainly in persons older than 74.

Stroke is a pathology that typically affects elderly people. The authors' data for 2005 show that more than half of the cases occurred in persons older than 74. The number of cases will therefore inevitably increase considerably over the next 40 years. Our healthcare system is not sufficiently prepared for this scenario, as the authors point out.

A fundamental problem of the data presented by the authors is the fact that the calculated future prediction is based on constant, age related stroke incidence rates. This is, however, not to be expected because the fact that people are living longer in our society is partly due to a reduction in morbidity. Careful estimates of the demands that neurological diseases of old age will place on our healthcare system are very important on the background of shifts in the age pyramid. The fact that the factors influencing these developments are undergoing change, however, means that such calculations are inevitably appreciably imprecise.

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In Reply:

Professor Herrmann makes an important point. In our article, we assumed stable, age specific stroke incidence rates for the future. We based our calculations of the reported increase in stroke rates to 2050 on demographic trends without taking any further assumptions into account. However, as Professor Herrmann points out, assuming stable incidence rates may not be justified since "the fact that people are living longer in our society is partly due to a reduction in morbidity" (key word healthy ageing); this would mean we have overestimated future stroke rates.

However, the literature thus far is showing no clear decrease in stroke rates, something that we went into in

great detail in our discussion section. In view of the literature published worldwide in long term trends in stroke incidence and "internal" comparison of our data (2005) with data from Erlangen's stroke registry from the early 1990s, we think that our assumption of mainly stable incidence rates is justified. Additionally, other factors influence the ageing society (not only the reduction in morbidity)-for example, people born in years with a high birth rate entering older age categories. In any case, continuing documentation in the context of quality assurance of stroke therapy in Hesse should put us in a position whereby we are able to regularly update and adapt our findings. DOI: 10.3238/arztebl.2008.0844b

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Conflict of interest statement

The authors of both the letter and of the reply declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.