The present issue of Revista Española de Cardiología publishes an epidemiologic estimate of stroke incidence in Catalonia constructed from the Minimum Basic Data Set (MBDS), compulsory in all Spanish hospitals.1 The MBDS is a valuable resource for healthcare planning providing data on the volume and nature of hospital use. The interest of this article lies in whether or not the estimate constitutes an epidemiologic resource that is adequate enough to enable us to establish the frequency of stroke, bearing in mind the changes in healthcare attention for cerebrovascular disease in the last decade, and permit us to change criteria for research into the epidemiology of stroke.2

The epidemiology of stroke has been marked by methodological discrepancies. The question of whether geographical or racial differences exist in different populations and the repercussion of population-wide interventions into risk factors affecting incidence obliged researchers to make the epidemiologic data available easy to compare. In 1987, Malmgrem et al.3 who participated in the Oxford study, established what they called ideal criteria for the analysis of the epidemiology of stroke, which obliged interventionist population-based studies to guarantee complete selection as they considered data from hospital registries and the registry of deaths were insufficient and impeded the comparison of studies. In contrast, Marrugat et al1 moved in the opposite direction as they assumed the MBDS draws on such a wide catchment area that it guarantees adequate selection.

Various questions should be borne in mind on comparing data reported by Marrugat et al1 with the literature. Firstly, Marrugat et al include all episodes of stroke as they do not establish whether patients who may have been admitted on several occasions or prior to 2002, were excluded. Stroke is an illness and, essentially, we are not interested in the episodes but the population at risk. Consequently, most population-based studies only include specifically patients with first-ever stroke, as incident cases, as a new episode in a patient who has experienced one before does not mean the onset of the illness. So, on comparing data reported by Marrugat et al1 with population-based studies this must be borne in mind.

A second important issue is the length of the study. Malmgrem et al3 consider epidemiologic studies should have a 5 year duration at least, given seasonal differences in the presentation of episodes. This limitation means few population-based studies are considered ideal and, although a period this long is probably excessive, just 1 year may be too short a period. In-hospital experience tells us there are periods when incidence varies and, therefore, the length of the study should probably be greater in order to bring us closer to a real estimate.

Finally, the context of the study population is very large. Large population-based denominators enable us to reduce confidence intervals and present apparently closely-adjusted figures. However, these inevitably lead to a fall in the intensity of recruitment, which means they usually entail low rates. Furthermore, comparisons with other studies are also difficult to establish because data are not adjusted to a standard population.

In Spain, we do not have access to ideal epidemiologic studies of stroke. Most of the information available is based on hospital registries, door-to-door interviews in the population at large by sampling, or from the registry of deaths. Sources of data that almost fulfill the requirements of ideal studies, like the Requena or Alcoi studies, are unpublished. The population-based Alcoi study, conducted in the area around Cocentaina in 1989, lasted 1 year, not 5. The most complete study was made in Segovia, but this was based on patients with reversible stroke.4 This study found 150 new cases per 100 000 population in 1 year (Table), whereas Marrugat et al1 reported higher figures, perhaps because they included all patients with stroke. The Oxford Vascular Study5 found 160 new cases per 100 000 population, although overall

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Considered an extremely valuable resource, at a much lower cost than a population-based study.

Nonetheless, epidemiology is methodology and should be conducted with precision. We believe that, like any methodological instrument, the MBDS should be adequately validated as a research resource. The MBDS comes from clinical records and is completed by personnel in units of admission whose motivation may vary greatly. These data are also used to calculate hospital attendance so as to estimate productivity. Therefore, the MBDS was not set up as an instrument to promote diagnostic precision.

The estimate of stroke incidence reported by Marrugat et al.¹ should not differ greatly from the rate that a population-based study would find, despite the differences we have mentioned, and is therefore a good approximation that should be replicated in other geographic areas.

REFERENCES