Comparison of Time Trends in Brain and Central Nervous System Cancer Mortality (1990–2006) Between Countries Based on the WHO Mortality Database

Mortality data, abstracted from the World Health Organization (WHO) database, are available for various countries. We used brain and central nervous system (CNS) cancer mortality (ICD-10: C70–72) in 11 countries during the period 1990–2006. These countries were Japan, China (Hong Kong) and the Republic of Korea (Asian countries); the United States of America (USA); Australia; the Russian Federation, the United Kingdom (UK), Italy, Spain, France and Germany (European countries). For the USA, Spain and France, data were available for 1990–2005; Australia and Italy for 1990–2003; the Russian Federation for 1999–2006; and the Republic of Korea for 1995–2006. The world population was used for age standardization.

Age-standardized rates for brain and CNS cancer mortality (ICD-10: C70–72) in the 11 selected countries between 1990 and 2006 are shown for males (Fig. 1) and for females (Fig. 2).

Brain and CNS cancer mortality rates were about 1.5 times higher for males than for females. For males and females, similar trend in rates was observed over time between 1990 and 2006.

The mortality rates in the three Asian countries including Japan, China (Hong Kong) and the Republic of Korea were relatively low in comparison to those in European countries, Australia and the USA. The rate in Japan, especially, was the lowest of the 11 countries studied. Among the European countries, the Russian Federation and Spain in female only showed

Figure 1. Trends in age-standardized brain and central nervous system cancer mortality rates over time (ICD-10: C70–72) in 11 countries, males.

Figure 2. Trends in age-standardized brain and central nervous system cancer mortality rates over time (ICD-10: C70–72) in 11 countries, females.

Note: Mortality data, abstracted from the World Health Organization mortality database, were downloaded from the International Agency for Research on Cancer (IARC) CANCER Mondial Statistical Information System (http://www-dep.iarc.fr/). Data were tabulated by the authors of this article. Responsibility for this presentation and interpretation lies with the authors of this article.

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increasing trends, and the other countries showed neither increasing nor decreasing trends. The rate in Australia, which was the highest in the early 1990s among all countries studied, decreased becoming similar to those of the European countries. In the USA, the rate was similar to those in Europe and a decrease in trend was observed.

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