

8. QUALITY OF CARE

Mortality following stroke

Stroke and other cerebrovascular diseases accounted for around 7% of all deaths in OECD countries in 2013. Ischemic stroke represented around 85% of all cerebrovascular disease cases. It occurs when the blood supply to a part of the brain is interrupted, leading to a necrosis (i.e. the cells that die) of the affected part. Treatment for ischemic stroke has advanced dramatically over the last decade. Clinical trials have demonstrated clear benefits of thrombolytic treatment for ischemic stroke as well as receiving care in dedicated stroke units to facilitate timely and aggressive diagnosis and therapy for stroke victims (Hacke et al., 1995; Seenan et al., 2007).

Figure 8.12 shows the case-fatality rates within 30 days of admission for ischemic stroke when the death occurred in the same hospital as the initial stroke admission. Figure 8.13 shows the case-fatality rate where deaths are recorded regardless of where they occurred. This indicator is more robust because it captures fatalities more comprehensively. Although more countries can report the more partial same-hospital measure, an increasing number of countries are investing in their data infrastructure and are able to provide more comprehensive measures.

Across OECD countries 8.4% of patients in 2013 died within 30 days in the same hospital in which the initial admission for ischemic stroke occurred (Figure 8.12). The case-fatality rates were highest in Mexico (19.5%) and Latvia (18.4%). Rates were less than 5% in Japan, Korea and the United States. With the exception of Japan and Korea, countries that achieve better results for ischemic stroke also tend to report good case-fatality rates for acute myocardial infarction (AMI). This suggests that certain aspects of acute care may be influencing outcomes for both stroke and AMI patients. By contrast, Japan reports the lowest rates for ischemic stroke but high case-fatality rates for AMI. This somewhat paradoxical result requires further investigation but may be associated with the severity of disease in the country that is not captured in the data (see indicator “Mortality following acute myocardial infarction” in Chapter 8 for more details).

Across the 19 countries that reported in- and out-of-hospital case-fatality rates, 10.1% of patients died within 30-days of being admitted to hospital for stroke (Figure 8.13). This figure is higher than the same-hospital based indicator because it captures deaths that occur not just in the same hospital but also in other hospitals and out-of-hospital.

Between 2003 and 2013, case-fatality rates for ischemic stroke have decreased substantially (Figures 8.12 and 8.13). Across the OECD, case fatalities fell from 10.2% to 8.4% when considering same hospital rates and from 12.7% to 10.1% when considering in- and out-of-hospital rates. The United Kingdom and the Netherlands for the first indicator and the United Kingdom, Estonia and Finland for the second indicator were able to reduce their rates by an average annual reduction of more than 6% compared to an OECD average of respectively 2 and 2.5%. Better access to high-quality stroke care, including timely transportation of patients, evidence-based medical interventions and high-quality specialised facilities such as stroke units have helped to reduce 30-day case-fatality rates (OECD, 2015).

Despite the progress seen so far, there is still room to improve implementation of best practice acute care for cardiovascular diseases including stroke across countries. To shorten acute care treatment time, targeted strategies can be highly effective. But to encourage the use of evidence-based advanced technologies in acute care, wider approaches are needed. Adequate funding and trained professionals should be made available, and health care delivery systems should be adjusted to enable easy access (OECD, 2015).

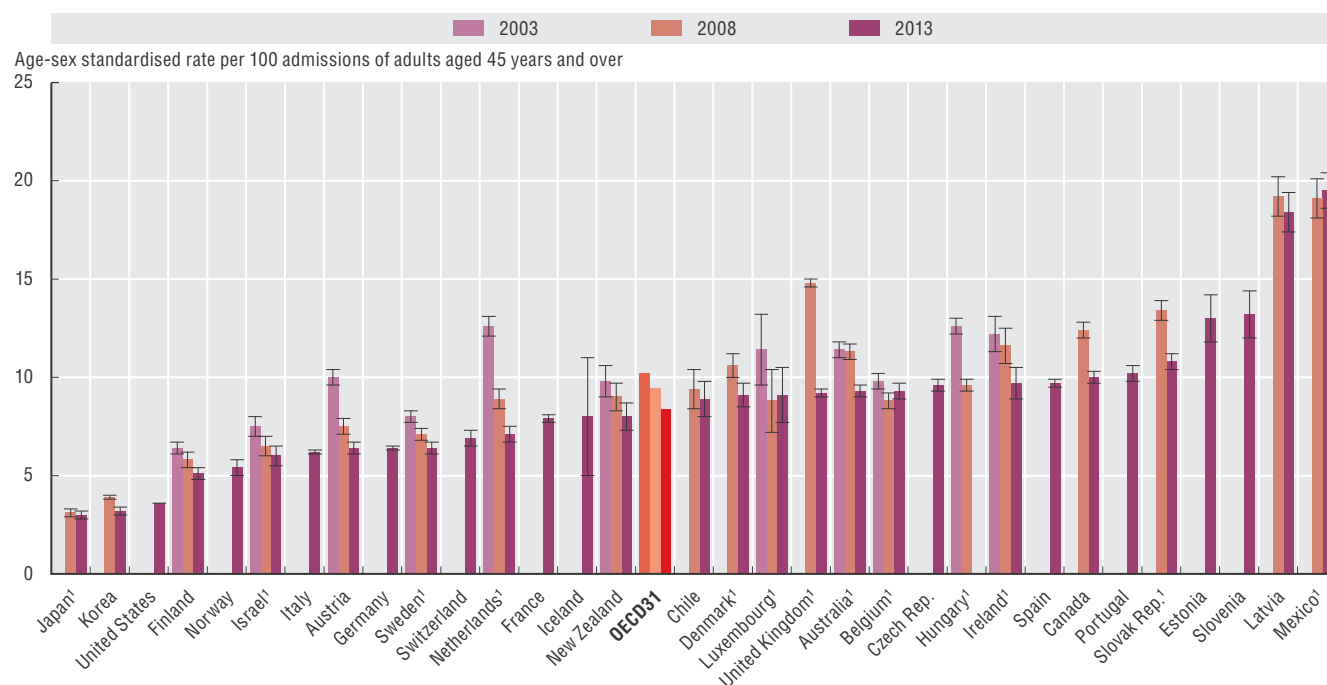
Definition and comparability

Case-fatality rates are defined in indicator “Mortality following acute myocardial infarction” in Chapter 8.

References

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8.12. Thirty-day mortality after admission to hospital for ischemic stroke based on admission data, 2003 to 2013 (or nearest years)



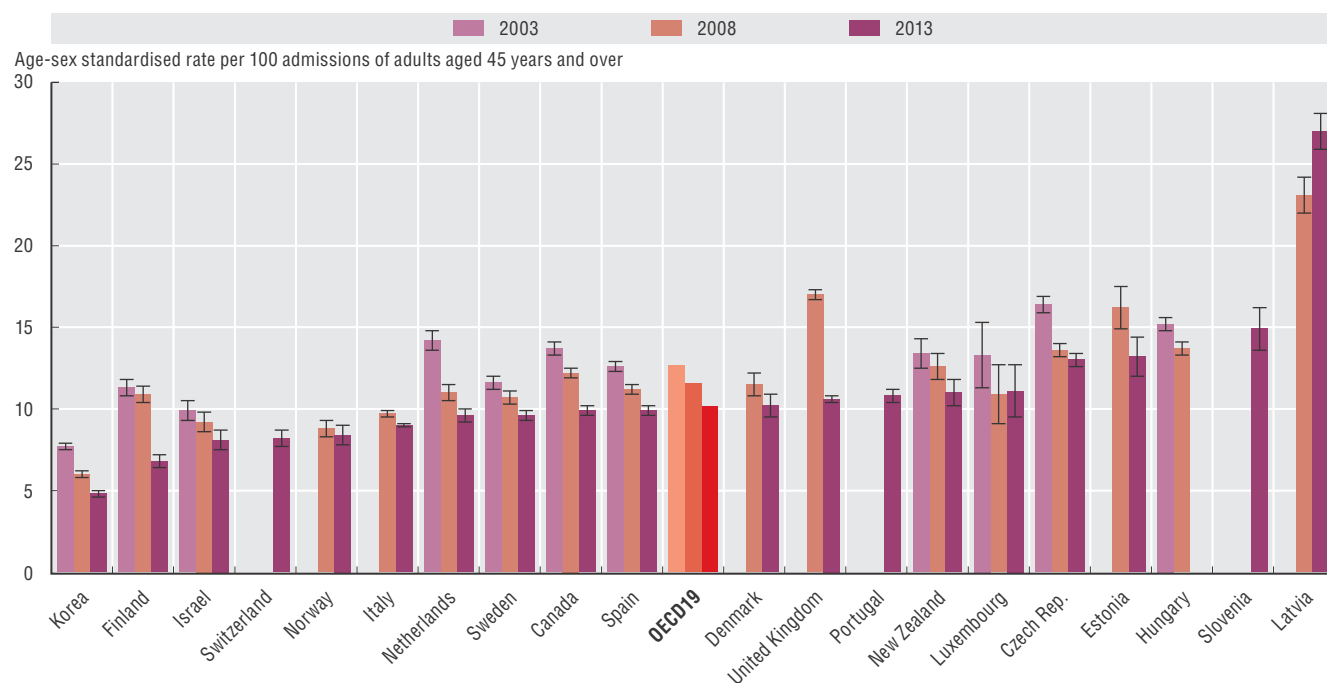
Note: 95% confidence intervals represented by H. Three-year average for Iceland and Luxembourg.

1. Admissions resulting in a transfer are included.

Source: OECD Health Statistics 2015, <http://dx.doi.org/10.1787/health-data-en>.

StatLink <http://dx.doi.org/10.1787/888933281146>

8.13. Thirty-day mortality after admission to hospital for ischemic stroke based on patient data, 2003 to 2013 (or nearest years)



Note: 95% confidence intervals represented by H. Three-year average for Luxembourg.

Source: OECD Health Statistics 2015, <http://dx.doi.org/10.1787/health-data-en>.

Information on data for Israel: <http://oe.cd/israel-disclaimer>

StatLink <http://dx.doi.org/10.1787/888933281146>



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