Continuous Optimising Quality of Care Following Stroke

By analysing routinely collected health data, researchers were able to suggest changes in the treatment of stroke patients that could improve healthcare.

The Challenge
When people have a stroke, certain steps can be taken to increase their chance of survival and recovery. These are included in national standards of care that patients who have had a stroke should expect to receive when in hospital, including timely admission to a specialist stroke ward, receiving a brain scan, being given the right medication and helping people make the best possible recovery by seeing the right therapists in a timely manner.

Ensuring all patients receive the same high quality care is challenging because of variations in staffing levels, backlogs of work and other factors. Local data that can be entered into databases in real time by clinical teams can be used to identify and close gaps in care so that quality standards are met, ensuring that all patients get the best possible care. This analysis has the potential to continuously improve healthcare services.

The Research
The research team analysed one year of data for every hospital in England and Wales based on 74,000 patient admissions from a system called Sentinel Stroke National Audit Program (SSNAP) to look at the quality of care patients received depending on the time of day and day of the week of admission.

The Results
Results showed that the controversial “weekend effect” where it has been suggested that certain patients have higher risk of dying if admitted to hospital at weekends was too simplistic. Researchers found that care standards varied according to both days and times. Some aspects of care were delivered better in the morning compared to the afternoon, other care was consistent across the whole week and some standards were delivered better at night than they are in the day. Using special techniques, the researchers identified the likelihood of patients receiving each type of care according to when they were admitted. Because the results were quite complex, a coloured graph or “heat map” was designed to show the how care varied within individual clinics. This made the results and the best actions clinicians should take more understandable.

The Impact
The study is a good example of how analysing routine health data can lead to changes in practice to improve healthcare- for example quick access to a stroke unit if admitted overnight on a Sunday and Monday morning. This translates to better stroke care for patients in terms of improved survival and recovery. By presenting the results to clinical teams in ways that are meaningful to them, health informatics holds much promise to improve healthcare.

For more information about the Stroke Audit visit: www.strokeaudit.org

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