
Study: radiology access impacts stroke care delivery



A new study has found gaps in the way different hospitals worldwide provide acute stroke care. Hospitals in developed countries are better resourced to deliver stroke care quickly, with advanced treatment, compared to their counterparts in poor or developing countries.

"Noting the differences in the management of acute stroke, strides should be taken to improve on healthcare delivery with special consideration of countries with fewer resources," according to the study to appear in *Journal of the American College of Radiology*.

There have been major recent advancements in stroke care, including stroke imaging-based treatment, to intervene more quickly and effectively. Recent neurointerventional trials, such as DAWN and DEFUSE 3, have transformed the way clinicians provide acute stroke care in the United States and provided hope for patients who come beyond the traditional thrombolytic window of 6 hours.

Of note, the U.S. and other regions have adopted updated imaging protocols when dealing with acute stroke patients because many decisions of patient selection are based on imaging. With so many new advancements and promising results in stroke care, however, countries may face challenges adapting to the most current guidelines.

Researchers at University of California San Francisco conducted this study to learn more about how stroke care is delivered around the world with an emphasis on imaging. A survey was sent out via email to radiologists at hospitals in various countries. Twenty-six questions were included in the survey pertaining to identification and country, protocols for stroke care, resources for stroke care, and more.

Overall, the 15 responses to the survey represented 14 distinct countries. The responses were gathered from four African countries, five Asian countries, three European countries, one North American country, and one South American country. Two responses were obtained from Spain, with consensus in responses.

The study's key findings include:

- Countries that were better resourced to deliver stroke care had an updated protocol and had the quickest door-to-CT and door-to-needle time.
- Although the majority of survey respondents stated having at least one neurointerventionalist, better-resourced countries had at least two neurointerventionalists in their hospitals.
- Aside from lacking specialised physicians for stroke care, developing countries were among those having slower response times, and often tissue plasminogen activator (tPA) was not available.
- In developing countries, current stroke imaging protocols were predominantly CT only. There were no changes to protocols with respect to knowledge on interventional trials in these lesser-resourced countries as per the respondents.

"Improving the delivery of stroke care even in the absence of full resources provides opportunity for improvement in training and education. There is still a need for specialists in certain regions of the world, thus establishing training programmes for neurology or neuroradiology has the potential to improve stroke care," writes Bhavya Rehani, MD, Department of Radiology and Biomedical Imaging, UC San Francisco, with co-authors.

One way to augment resources and capability is for hospitals, especially the small ones with limited resources, to pair up with a larger, better-equipped hospital to deliver stroke care, according to the authors, adding that such integration require major planning, collaboration, and partnerships and likely involve local and national governments for appropriate reimbursements.

"Integration and linkage to care could prove to be most efficient, especially in the face of fewer resources — making use of specialised clinicians, equipment, and protocols to deliver advanced stroke care," the authors conclude.

Source: [Journal of the American College of Radiology](#)
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