

# Postacute care program of stroke: Better functional recovery

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Stroke is the first leading cause of handicap in Taiwan. All patients with stroke are recommended to have rehabilitation as soon as possible after their condition becomes stable. However, in Taiwan, the average length of hospital stay between 2006 and 2008 was 8 days for ischemic stroke and 13 days for intracerebral hemorrhage,<sup>1</sup> which was longer than the average length of hospital stay of 5 days in the United States at the same time.<sup>2</sup> The prolonged hospital stay is a prevalent problem for healthcare of acute stroke in Taiwan. Between 1997 and 2002, about 10.4% of patients with acute stroke had a hospital stay for >23 days, which accounted for 38.9% of the total person-hospital days and 47.8% of the in-hospital cost of stroke.<sup>3</sup> In 2011, about 16.2% of patients with acute stroke had a hospital stay for >30 days, and accounted for 56.4% of the in-hospital cost of stroke.<sup>4</sup> Therefore, the prolonged hospital stay and elevated healthcare cost of stroke worsened.

An early initiation of rehabilitation program can reduce the length of hospital stay and facilitate the functional recovery of stroke.<sup>5</sup> In Taiwan, the National Health Insurance Administration launched a program of postacute care of cerebral vascular disease (PAC-CVD) in 2014: Patients who are able and willing to have intensive rehabilitation will be transferred to the designated rehabilitation hospitals within 30 days of stroke onset. The administrative data showed patients who were in the PAC-CVD program had a lower readmission and mortality rate compared with those not in the program (11.6% vs 25.4% in 14-day readmission rate and 3.3 vs 4.8% in mortality rate).<sup>6</sup> Besides, the patients' functional recovery and quality of life improved significantly after they finished the PAC-CVD program.<sup>6-9</sup> Although the PAC-CVD program might reduce the healthcare cost of acute stroke, it was unclear whether the functional recovery of the PAC-CVD program participants was better than those who had regular treatment.

Huang's study published in the current issue of *the Journal of the Chinese Medical Association*<sup>10</sup> reported that the PAC-CVD program participants had a lower rate of severe handicap status (modified Rankin Scale scored 5 to 6) compared with those

who had regular treatment (odds ratio = 0.08, 95% confidence interval = 0.008-0.84;  $p = 0.035$ ). This is the first case-control study proving that the PAC-CVD program is beneficial in the functional recovery of stroke patients in Taiwan. Currently, only <50% eligible stroke patients are willing to participate in the PAC-CVD program,<sup>11</sup> partly because patients are not confident that the local rehabilitation hospitals are able to provide good healthcare. Huang's study provides us a solid evidence that the PAC-CVD program with intensive rehabilitation is more effective than regular treatment for functional recovery. This information will be very helpful for future healthcare policy of stroke.

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