

# The need for knowledge and skills in the care of post-stroke patients

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Stroke is the second leading cause of death worldwide, and a major cause of disability. The incidence of stroke is increasing because the population is aging.<sup>1</sup> Effective post-stroke care is essential to improve outcomes for both patients and families; however, limited skills and competence, as well as low levels of awareness and knowledge, represent barriers to optimal evidence-based practice in stroke care.<sup>2</sup> The aim of this editorial is to highlight the importance of stroke-related knowledge and skills among nurses and allied professionals.

As an example of difficulties, nurses cited limited expertise in oral care and stroke-specific skills as barriers for implementing water protocols in acute stroke care.<sup>3</sup> Previous studies demonstrated that nurses did not have the adequate knowledge and skills to allow them to screen for and treat dysphagia in post-stroke patients, and that they required additional training.<sup>4–6</sup> In addition, a survey of cardiovascular nurses reported poor knowledge and training in the area of atrial fibrillation and oral anticoagulant therapy, which is vital to prevent stroke.<sup>7</sup> Clinical protocols to manage fever, high sugar, and dysphagia, made digitally available by the Quality in Acute Stroke Care Trial, were downloaded by less than half of the 159 healthcare professionals from 21 countries participating in the study, and the instructions for protocol implementation were not always followed successfully.<sup>8</sup> The findings of these studies represent a sample of the evidence that healthcare providers may have insufficient knowledge and skills to allow them to provide efficient treatment for the post-stroke patient. Such suboptimal care might have serious implications for patient and care outcomes. The current issue of the *European Journal of Cardiovascular Nursing* includes three papers that not only outline the deficiencies of knowledge and skills in the treatment of post-stroke patients, but also note the potential benefits that might be derived from acquiring stroke-related knowledge and skills.

The first article, “Cardiac disease and stroke: practical implications for personalised care in cardiac-stroke patients. A state of the art review supported by the Association of Cardiovascular Nursing and Allied Profession,” outlines the significance of primary

stroke prevention in cardiac patients.<sup>9</sup> The authors emphasize that global healthcare systems are not sufficiently integrated to allow them to provide individualized care for cardiac-stroke patients. Moreover, the authors highlight the necessity of healthcare providers having significant knowledge about stroke and being aware of challenges faced by patients suffering from both cardiac disease and stroke.

In the second article, “Exploring nursing and allied health perspectives of quality oral care after stroke: a qualitative study,” the authors examine the perceptions of stroke nurses and allied healthcare professionals regarding the quality of oral care among patients post stroke.<sup>10</sup> The main findings of this paper highlighted inadequate knowledge, resources, training, and practice related to oral healthcare for patients post stroke in both acute and rehabilitation settings.

The third article, “Risk stratification model for post-stroke pneumonia in patients with acute ischemic stroke,” deals with the development of a prediction model for post-stroke pneumonia (PSP) in patients with acute ischemic stroke.<sup>11</sup> Here, the authors identified factors such as the National Institute of Health Stroke Scale score at admission, pulse rate at admission, and percentage of lymphocytes, as important for stratifying the risk of PSP. Applying the risk stratification model will allow healthcare providers to recognize high-risk patients early and undertake interventions to reduce PSP.

Given the shortcomings in knowledge and skills, it could be useful to consider the introduction of a broad stroke-training program for nurses and allied professionals. This could improve the quality of post-stroke patient care, promote interactive education and

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training, and encourage the correct use of protocols or guidelines. This type of approach is associated with a positive impact on patient and quality-of-care outcomes among nurses and healthcare staff involved in post-stroke patient care.<sup>12</sup> A novel mHealth, smartphone-based, spaced-learning intervention has been shown to improve nurses' knowledge of atrial fibrillation and anticoagulation, and to influence their use of stroke and bleeding risk assessment tools in clinical practice.<sup>13</sup> In addition, both stroke nurse managers, who are senior nurses with specialized stroke knowledge, and stroke nursing practitioners, who undergo an advanced practice training, might usefully educate nurses on neurology units about different aspects of recommended treatment for post-stroke patients.<sup>14</sup> Nurses might also benefit from practical workshops and modules providing tips from senior personnel with experience in establishing training programs and/or assessments.

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### References

1. Katan M and Luft A. Global burden of stroke. *Semin Neurol* 2018; 38: 208–211.
2. Baatiema L, Otim ME, Mnatzaganian G, et al. Health professionals' views on the barriers and enablers to evidence-based practice for acute stroke care: a systematic review. *Implement Sci* 2017; 12: 74.
3. Barker A, Doeltgen S, Lynch E, et al. Perceived barriers and enablers for implementing water protocols in acute stroke care: a qualitative study using the Theoretical Domains Framework. *Int J Speech Lang Pathol* 2019; 21: 286–294.
4. Freeland TR, Pathak S, Garrett RR, et al. Using medical mannequins to train nurses in stroke swallowing screening. *Dysphagia* 2016; 31: 104–110.
5. Cichero JAY, Heaton S and Bassett L. Triaging dysphagia: nurse screening for dysphagia in an acute hospital. *J Clin Nurs* 2009; 18: 1649–1659.
6. Palli C, Fandler S, Doppelhofer K, et al. Early dysphagia screening by trained nurses reduces pneumonia rate in stroke patients: a clinical intervention study. *Stroke* 2017; 48: 2583–2585.
7. Ferguson C, Inglis SC, Newton PJ, et al. Education and practice gaps on atrial fibrillation and anticoagulation: a survey of cardiovascular nurses. *BMC Med Educ* 2016; 16: 9.
8. Middleton S, Bruch D, Martinez-Garduno C, et al. International uptake of a proven intervention to reduce death and dependency in acute stroke: a cross-sectional survey following the QASC Trial. *Worldviews Evid Based Nurs* 2017; 14: 447–454.
9. Hendriks J, Andraea C, Ågren S, et al. Cardiac disease and stroke: practical implications for personalised care in cardiac-stroke patients. A state of the art review supported by the Association of Cardiovascular Nursing and Allied Professions. *Eur J Cardiovasc Nurs* 2020; 19: 495–504. DOI: 1474515119895734.
10. Ferguson C, George A, Villarosa AR, et al. Exploring nursing and allied health perspectives of quality oral care after stroke: a qualitative study. *Eur J Cardiovasc Nurs* 2020; 19: 505–512.
11. Kuo Y-W, Huang Y-C, Lee M, et al. Risk stratification model for post-stroke pneumonia in patients with acute ischemic stroke. *Eur J Cardiovasc Nurs* 2020; 19: 513–520.
12. Jones SP, Miller C, Gibson JME, et al. The impact of education and training interventions for nurses and other health care staff involved in the delivery of stroke care: an integrative review. *Nurse Educ Today* 2018; 61: 249–257.
13. Ferguson C, Hickman LD, Phillips J, et al. An mHealth intervention to improve nurses' atrial fibrillation and anticoagulation knowledge and practice: the EVICOAG study. *Eur J Cardiovasc Nurs* 2019; 18: 7–15.
14. Anderson E, Fernandez S, Ganzman A, et al. Incorporating nonphysician stroke specialists into the stroke team. *Stroke* 2017; 48: e323–e325.