

Letter to the Editor

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Letter by Shiue and Sands Regarding Article, “Incorporating Nonphysician Stroke Specialists Into the Stroke Team”

To the Editor:

Anderson et al¹ discussed the importance of integrating non-physician providers and their special skill sets into the stroke care continuum. We would like to add clinical pharmacists as another group of nonphysician providers who can have a significant impact.

Pharmacotherapy is critical in emergency stroke care, in particular alteplase for systemic thrombolysis in the setting of an acute ischemic stroke. It is well-established that early thrombolysis treatment in patients with acute ischemic stroke improves functional outcomes and minimizes neuronal death. Clinical pharmacists, who are part of the stroke team and respond to bedside, are an effective way to improve door-to-needle times in the emergency room.² They are available to review for contraindications such as anticoagulant use, calculate dose, and mix alteplase when thrombolysis is indicated, and serve as the dose double check, preventing medication errors.

Frequently, clinical pharmacists are embedded within the hospital rounding stroke teams. They help ensure that in-hospital patients with stroke are prescribed medications that improve outcomes including antiplatelet therapy, statins, and deep vein thrombosis prophylaxis, which all are important for Joint Commission metric compliance. Clinical pharmacists perform medication reconciliations, helping to keep patient medication profiles accurate and updated. They also verify that appropriate and necessary home medications are restarted in the hospital. In the outpatient setting, clinical pharmacists can improve medication adherence and are effective at managing stroke risk factors such as hypertension and hyperlipidemia.³ In addition, they can be successfully integrated to lead anticoagulation clinics that monitor warfarin and direct-acting oral anticoagulants.^{4,5}

Last, clinical pharmacists can play an essential institutional role in stroke education and research. They provide continuing stroke specific education to nursing staff and help navigate the complexities of stroke pharmacotherapy. Clinical pharmacists are also readily available at bedside to serve as real-time resources to nursing staff, patients, and family members for drug administration, monitoring of adverse effects, and medication discharge counseling. They have a unique perspective and can raise clinically relevant research questions, making them assets

in multidisciplinary studies. For example, clinical pharmacists have access to hospital medication dispensing data. This can be used for research to capture all patients who received alteplase and investigate factors that may improve stroke outcomes. Furthermore, the data can be incorporated into institutional quality improvement projects, helping to maintain Joint Commission stroke center accreditations.

In summary, clinical pharmacists can play an essential role in the care of patients with stroke. They bring a unique skill set that is applicable throughout the stroke care continuum. Their skills can be applied in acute stroke care, nursing and patient education, clinical research, and maintenance of stroke center accreditations. Therefore, we think clinical pharmacists should be included as another nonphysician member of the multidisciplinary stroke team.

Disclosures

None.

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