

## Editorial

# Addressing Access to Stroke Treatment for Patients with Pre-existing Disabilities

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The treatment and management of stroke patients with a pre-existing disability, including cognitive disability, are important areas of further study. Patients with disability are often excluded from stroke randomized clinical trials (RCTs) for pragmatic reasons relating to interpreting findings<sup>1,2,3</sup> and obtaining consent.<sup>4</sup> However, the lack of RCT evidence for the efficacy of a treatment does not equate to a lack of efficacy. In this issue of the journal, Cruise et al. conducted a systematic review of the literature to illuminate various dimensions related to the treatment and management of stroke patients with a premorbid disability with the goal of determining potential biases in practice that may result in a disparity in access to best practices in this population.<sup>5</sup> They identified 24 observational studies and addressed four themes: differences in outcomes in patients with disability versus without prestroke disability, differences in treatment, choice of stroke outcome, and treatment practices.

The authors found that the effectiveness of standard of care stroke treatments given in routine clinical practice is largely similar for patients with prestroke disability compared to those without. These results were found across a range of treatments, ranging from hyperacute revascularization treatments, stroke unit care during the acute hospitalization, and rehabilitation after acute stroke. However, stroke patients with a prestroke disability were less likely to receive treatment, raising concerns that the disability may exclude patients from receiving treatment, and leading to worse poststroke outcomes. The study also revealed that stroke patients with pre-existing cognitive impairment were not prioritized for rehabilitation or had fewer sessions. Furthermore, although the determination of eligibility for rehabilitation therapies should be a shared decision that includes the consideration of the patient's and their caregivers' preferences and rehabilitation goals, the practitioners acknowledged in a qualitative study that there is a subjective component, and the clinician's personal biases may influence such a decision.

Although the authors reviewed the variations in clinician practices in determining rehabilitation eligibility, they acknowledged that they had a paucity of data on how physicians make decisions to treat patients. Beyond clinician decision-making, it is relevant to explore other reasons why treatments may be different. Taking the

example of intravenous thrombolysis, there may be delays in recognizing symptoms of stroke in patients with baseline disability resulting in later arrival to hospital for patients with prestroke disability compared to those without disability, differences in contraindications (prior intracerebral hemorrhage, therapeutic anticoagulation), or the lack of immediate substitute decision-maker for consent.<sup>6</sup> While we must work towards reducing inequities in treatment, inequalities may remain due to differences in patient characteristics and other confounding factors.

The authors' message that clinical research, including RCTs, should strive to be more inclusive of patients with baseline disability and should measure outcomes that matter to patients and their caregivers is loud and clear. The limitations of the modified Rankin Scale, the most widely used scale for functional outcomes in stroke research, have been previously raised, but may be more prominent among those with baseline disability. Further work is needed on the impact of stroke therapies on patient quality of life, patient-reported outcome, and experience measures.<sup>7</sup>

Taken together, these findings should be a call-to-action for practitioners and policymakers. The guidance from best practices should highlight that all patients regardless of their prestroke disability including cognitive impairment should be given access to the standard and most appropriate stroke treatment and management. This would ensure that people with disability are given equitable opportunity to return to their prestroke ability as are people without disability. This is especially important for stroke patients, as stroke is more prevalent in older persons, who have greater disability than younger persons.

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