

**Failures to Discuss and Document Preferences: Preventable Medical Errors in  
Stroke Care**

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In many cases, patients with early mortality after ischemic stroke die following family and medical team decisions to limit life-sustaining treatment, rather than dying despite maximal intensive care.<sup>1</sup> Such decisions can involve a complex balancing of patient values: consider, for instance, how two different patients might evaluate the prospect of (1) a high likelihood of survival but with a poor projected neurological prognosis, as compared to (2) a low likelihood of survival but with a favorable projected neurological prognosis.<sup>2, 3</sup> Because decisions to extend or limit life-sustaining therapy after ischemic stroke can be highly preference-sensitive, and because these decisions have profound impacts on early mortality, early discussion and documentation of patient preferences for life-sustaining treatment are essential to high-quality care in acute ischemic stroke. An article by Robinson et al.<sup>4</sup> in this issue of *Neurology* indicates that, unfortunately, we are failing to meet this standard.

Drawing on a representative sample of all California acute care hospitals, Robinson et al. examined medical records of 198 patients who died within 30 days after ischemic stroke from December 2006 to November 2007. The authors found that more than 60% of patients in this early mortality cohort did not have documentation of physician-patient communication regarding life-sustaining interventions. Even among those who died within the hospital or discharged to hospice, only 50% had documented discussion about end-of-life treatment. These findings, although not surprising, highlight the need for improving patient-centered palliative and end-of-life care in stroke.<sup>5</sup>

Another salient finding is that as many as 44% decedents expressed their preferences for care limitations during the index hospitalization. However, communication with their physicians and documentation of such discussions remained

inadequate. More than 20% of these patients did not have documented physician-patient communication regarding end-of-life treatment, even though they had already expressed the desire to forgo life-sustaining intervention at the end of life. The lack of documentation or communication regarding appropriate end-of-life treatment may lead to patients receiving care that is not consistent with their preferences and cause harm and suffering for both patients and their families.

As with any study, the report by Robinson et al has limitations. This study reported only documented physician-patient communication regarding end-of-life treatment. The actual care provided was not examined. In addition, the current study relied solely on chart review. Physician-patient communication might be difficult to locate in the medical record without a standardized documentation form. Therefore, the true rate of physician-patient communication may have been underestimated.

Even with these caveats, the current study provides compelling evidence that physician-patient communication about end-of-life issues in stroke patients at risk for early mortality remains suboptimal. As such, the study findings comport with other research on failures to elicit and document patient preferences for life-sustaining treatment in medical inpatients.<sup>6</sup> As has been noted elsewhere, such failures to incorporate patient preferences are themselves preventable medical errors,<sup>7</sup> and these errors are particularly consequential in the setting of ischemic stroke. Future initiatives to improve safety and reduce preventable errors in stroke care should include efforts to identify contributing factors associated with the lack of communication, develop interventions to promote healthy dialogue between patients, their families and the health

care team, and ultimately improve patient-centered care at the end of life for stroke patients.

## Reference

1. Kelly AG, Hoskins KD, Holloway RG. Early stroke mortality, patient preferences, and the withdrawal of care bias. *Neurology* 2012;79:941-944.
2. Creutzfeldt CJ, Holloway RG. Treatment Decisions After Severe Stroke: Uncertainty and Biases. *Stroke* 2012;43:3405-3408.
3. Chiong W, Kim AS, Huang IA, Farahany NA, Josephson SA. Inability to consent does not diminish the desirability of stroke thrombolysis. *Annals of Neurology* 2014;76:296-304.
4. Robinson MT. The Lack of Documentation of Preferences in a Cohort of Adults Who Died After Ischemic Stroke. *Neurology* 2016;XXX:XXX-XXX.
5. Geurts M, Macleod MR, van Thiel GJMW, van Gijn J, Kappelle LJ, van der Worp HB. End-of-life decisions in patients with severe acute brain injury. *The Lancet Neurology* 2014;13:515-524.
6. Heyland DK, Barwich D, Pichora D, et al. Failure to engage hospitalized elderly patients and their families in advance care planning. *JAMA Internal Medicine* 2013;173:778-787.
7. Allison TA, Sudore RL. Disregard of patients' preferences is a medical error: comment on "Failure to engage hospitalized elderly patients and their families in advance care planning". *JAMA Intern Med* 2013;173:787.