

versely, our sample from the Health ABC study comprised approximately 50% male and 50% black elderly individuals. We agree that it would be useful to pool studies to determine how the association between β -amyloid 42/40 level and cognitive function is modified by education in a larger sample including diverse racial and ethnic groups and a wide range of educational attainment. This will be a useful next step in fully understanding β -amyloid 42/40 as a potential biomarker for Alzheimer disease and other dementias.

Dr Pomara and colleagues were concerned that psychotropic medication use, specifically benzodiazepine and anticholinergic drug use, may have confounded the association between plasma β -amyloid 42/40 level and cognitive decline. We examined our data and did not find any association between benzodiazepine use and β -amyloid 42/40 level ($P = .19$) or between anticholinergic use and β -amyloid 42/40 level ($P = .61$). Thus, we think it is unlikely that benzodiazepine and anticholinergic drugs were confounders.

What is striking about the questions raised in both of these letters is that, despite the considerable amount of ongoing research on plasma and cerebrospinal fluid β -amyloid 40 and β -amyloid 42, we know surprisingly little about the predictors and correlates of β -amyloid in both normal and cognitively impaired elderly. If β -amyloid levels turn out to be a promising biomarker, it will be important to fully understand how levels are influenced by demographic and medical conditions.

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1. Okereke OI, Xia W, Selkoe DJ, Grodstein F. Ten-year change in plasma amyloid β levels and late-life cognitive decline. *Arch Neurol*. 2009;66(10):1247-1253.

Stroke Center Designation and Mortality

To the Editor: The report by Dr Xian and colleagues¹ supported designated stroke units. It would be heartening to see a benefit to patients from the creation of designated, focused, certified stroke centers. Central to the premise that the unit rather than the hospital makes the difference is the comparison of hospital performance in other areas, such as the mortality from gastrointestinal hemorrhage or acute myocardial infarction.

However, there appeared to be a difference between hospitals that were designated stroke centers and those that were not with respect to mortality after admission for an acute myocardial infarction. The statistical analysis in Table 5 showed better mortality at every time point (1 day, 7 days, and 30 days) for both gastrointestinal hemorrhage and myocardial infarction in the designated stroke center hospitals compared with nondesignated hospitals. Although a secondary analysis, the unadjusted mortality difference at 30

days for patients with myocardial infarction reached a statistical significance of .0001.

Given this finding, it appears that those centers that spent the extra time to obtain certification as stroke centers may have been at institutions that were already providing the best-quality medical care, perhaps teaching institutions or those more active in the community to stimulate earlier arrival at the hospital for patients with chest pain or neurologic symptoms. The findings do not support the concept that the designation of certified stroke center is associated with better hospital performance for patients with acute ischemic stroke.

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1. Xian Y, Holloway RG, Chan PS, et al. Association between stroke center hospitalization for acute ischemic stroke and mortality. *JAMA*. 2011;305(4):373-380.

In Reply: Dr Weinrauch and Takeuchi question whether the mortality differences seen between stroke centers and non-designated hospitals were “nonspecific” because stroke centers also had lower observed mortality for patients admitted with acute myocardial infarction or gastrointestinal hemorrhage. Although there were nonsignificantly lower mortality rates at stroke centers for both conditions, patients admitted with acute myocardial infarction or gastrointestinal hemorrhage at stroke centers were relatively younger. They also tended to have less comorbidity than patients admitted to nondesignated hospitals. After adjustment for these factors using either a multivariable logistic regression model or instrumental variable analysis, we found no differences in mortality rates between patients with acute myocardial infarction and gastrointestinal hemorrhage who were treated at the stroke vs nondesignated centers. Thus, our finding regarding better mortality at stroke centers appears specific for stroke and not for other common causes for admission.

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Disclaimer: Dr Peterson is Contributing Editor, *JAMA*.

Ultrasound and Physical Examinations for Obese Patients

To the Editor: The article by Drs Silk and McTigue on the physical examination in obese patients¹ did not discuss the use of portable, handheld ultrasound as an adjunct. Small,