Stroke

RESEARCH LETTER

Smoking-Cessation Pharmacotherapy After Stroke and Transient Ischemic Attack: A Get With The Guidelines-Stroke Analysis

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Smoking-cessation rates after stroke are suboptimal.[1] Smoking-cessation medications—nicotine replacement therapy, varenicline, and bupropion—significantly increase the likelihood of successful abstinence, compared to counseling alone.[2] We aimed to assess rates and predictors of cessation medication provision after stroke and transient ischemic attack (TIA) in the United States, and hypothesized that patients with hemorrhagic stroke and TIA are less often given such treatments than patients with ischemic stroke.

This is a retrospective, cross-sectional study using data from the Get With The Guidelines-Stroke registry, an American Heart Association/American Stroke Association initiative (Supplemental Methods). We included active smokers with ischemic stroke, hemorrhagic stroke, and TIA from 2018 through 2020. We categorized patients as those who received any cessation medication versus none. Multivariable logistic regression assessed factors associated with cessation medication; models included variables significantly associated with provision in univariate analyses after Bonferroni correction.

We included 106 714 smokers with stroke/TIA. The mean age was 60 years (SD, 12) and 42% were women; 81.2% had ischemic stroke, 9.5% hemorrhagic stroke, and 9.2% TIA. Overall, 17.5% were smokers (ischemic stroke, 18.9%; hemorrhagic stroke, 14.9%; TIA, 12.4%). Altogether, cessation medication was provided to 29.8% of patients (nicotine replacement therapy, 16.2%; varenicline or bupropion, 13.0%; multiple/other, 2.3%); the remainder received counseling alone (Table S1). Proportions differed by event type: ischemic stroke (31.0%), hemorrhagic stroke (26.7%), and TIA (23.6%; Figure). Patients who received cessation medication versus counseling alone had similar age, sex, and comorbidities (Table S2). Stratified analyses and univariate models identified several patient-level and care-level factors associated with cessation medication provision (Table S3). In multivariable models, hemorrhagic stroke (odds ratio [OR], 0.81 [95% CI, 0.76–0.86]) and TIA (OR, 0.68 [95% CI, 0.64–0.73]) were associated with lower odds of cessation medication provision, compared to ischemic stroke. Additionally, Black (OR, 0.78 [95% CI, 0.74–0.82]) and Asian (OR, 0.72 [95% CI, 0.58–0.87]) patients had lower odds of receiving cessation medication, compared to White patients. Hispanic ethnicity was also associated with lower odds of cessation medication provision (OR, 0.65 [95% CI, 0.56–0.73]; Figure). Additional data for subarachnoid and intracerebral hemorrhage, and analyses addressing missingness, are provided separately (Supplemental Results).

The rates and variability of in-hospital smoking-cessation medication provision suggest that optimizing the use of these interventions during hospitalization may enhance secondary prevention efforts.

ARTICLE INFORMATION

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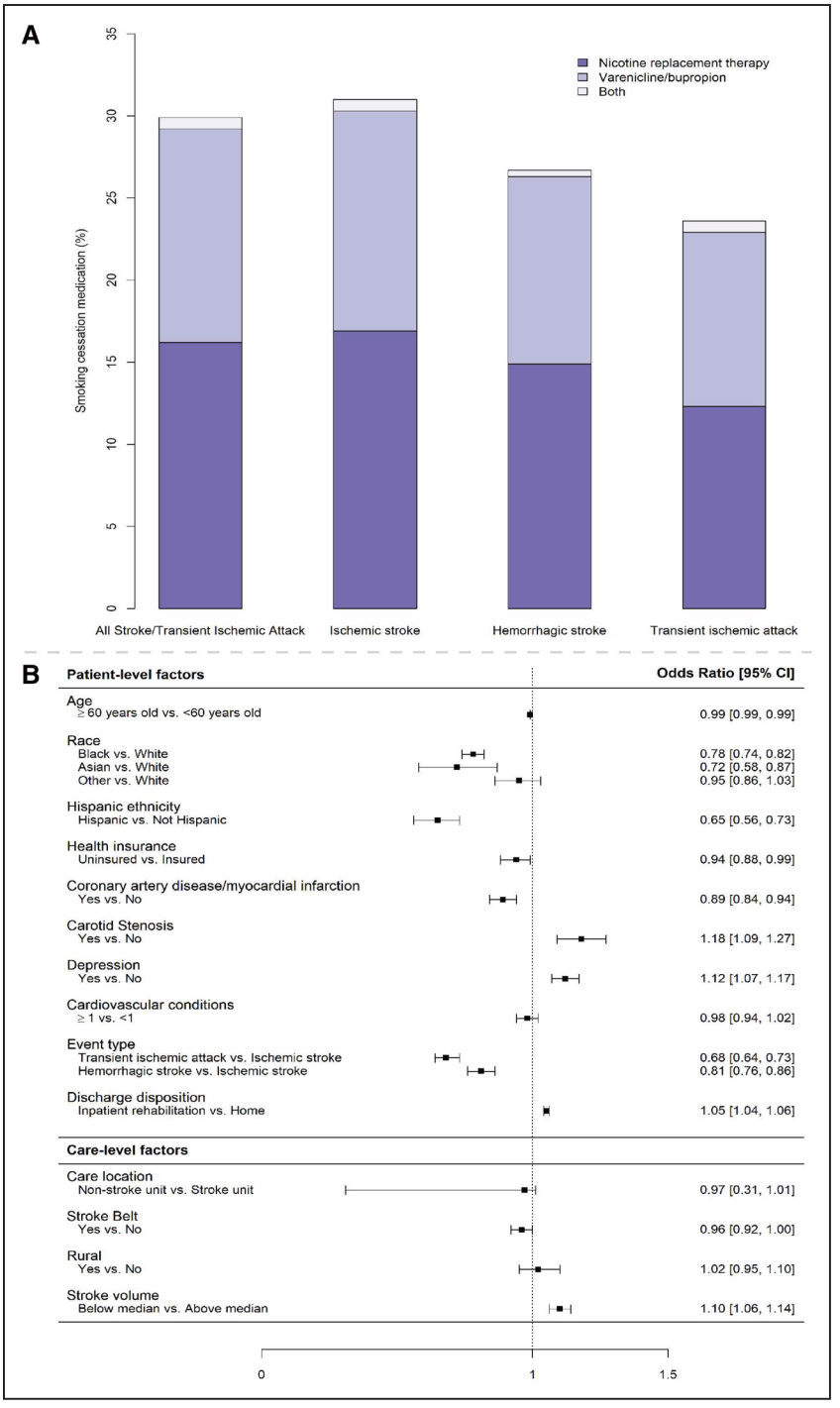

Figure. Smoking-cessation interventions after stroke and transient ischemic attack. Proportions receiving smoking-cessation medication varied by event type (**A**). Results of multivariable model highlighting factors with associations with smoking-cessation medication provision (**B**).

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Supplemental Material

Supplemental Methods and Results
Tables S1–S3
STROBE checklist

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