included. All subjects will be followed for approximately 1 year. The primary efficacy endpoint is adequate occlusion defined as Raymond-Roy Occlusion Class I and II at final follow-up. The primary safety endpoints are serious adverse events (SAE) within 24 hours post-procedure and device-related SAE up to 7 days or discharge. Imaging will be analyzed by an independent core lab to assess aneurysm occlusion rates at follow-up. Imaging modalities include DSA, computed tomography angiography (CTA), and/or MRA. A comparative analysis between imaging modalities will be performed for patients with DSA and MRA.

Results The trial is currently recruiting. Enrollment began November 2019 and the estimated date for study completion is June 2023. Imaging and clinical data collection and core laboratory review are ongoing.

Conclusion We report the design of the SURF study, a post-market registry that evaluates the safety and performance of the Penumbra SMART COIL System, including WAVE as a fill and finish coil, in the treatment of intracranial aneurysms.

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Late-Breaking Oral Abstracts

LB-001

RACIAL DISPARITIES IN ACUTE STROKE THROMBECTOMY MANAGEMENT AND OUTCOMES IN THE UNITED STATES: EVIDENCE FROM THE NVQI-QOD REGISTRY

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Introduction Endovascular mechanical thrombectomy is the standard of care treatment for acute ischemic stroke secondary to large vessel occlusions, but racial disparities in stroke interventional management and outcomes are not well studied. Moreover, a robust analysis of multiple relevant variables, with consideration of possible confounders, has not been

previously conducted. We aimed to evaluate real-world evidence for racial differences in stroke thrombectomy management, short- and long-term outcomes using the Neurovascular Quality Initiative-Quality Outcomes Database (NVQI-QOD) registry.

Methods Data from the NVQI-QOD registry database were analyzed and compared for racial differences with respect to technical and functional outcomes of stroke thrombectomy in 3281 patients from 23 US centers (17 states) between Jan 2015 to March 2020. Race was classified into 4 groups: 1) Caucasian (n=2484), 2) African American (n=563), 3) Hispanic (n=109), and 4) Asian (n=105). Analysis of variances (ANOVAs), Chi-square tests, Mann Whitney U tests, and multivariate regression models were used to assess racial disparities for 10 outcome variables: final thrombolysis in cerebral infarction (TICI) grade (n=3182), 24 hour NIH stroke score (NIHSS) (n=2850), post-procedure length of stay (n=3257), ICU days (n=2787), in-hospital mortality (n=3259), discharge status (n=3281), discharge NIHSS (n=2426), discharge modified Rankin score (mRS) (n=996), 90 day re-admission rate (n=416), and 90 day mRS (n=1184). Regression models controlled for demographics, comorbidities, intravenous tPA thrombolysis, and pre-stroke functional measures.

Results ANOVA and Chi-square tests revealed significant differences between racial group means including post-procedure length of stay (p<0.001), ICU days (p<0.001), and in-hospital mortality (p<0.001). There were no significant differences between racial group means for discharge mRS without mortality (African American: 26.7% favorable outcome, Caucasian: 26.8%, Hispanic: 27.8%, Asian: 25%; p=0.90) or for 90 day mRS without mortality (African American: 56.5% favorable outcome, Caucasian: 51.3%, Hispanic: 37.5%, Asian: 44.4%; p=0.54). Additional analyses revealed significant differences between African Americans and Caucasians for post-procedure length of stay (mean 10.9 versus 7.9; p<0.001), 24 hour NIHSS (mean 11.2 versus 10.3; p=0.037), ICU days (mean 4.4 versus 3.1; p<0.001), and in-hospital mortality (14.6% versus 24.5%; p<0.001). Differences between Hispanics and Caucasians were seen for post-procedure length of stay (mean 10.1 versus 7.9; p=0.010), 24-hour NIHSS (mean 12.1 versus 10.3; p=0.046), and ICU days (mean 4.3 versus 3.1; p=0.011). Differences between Asians and Caucasians were seen for post-procedure length of stay (mean 10.2 versus 7.9; p=0.004) and ICU days (4.6 versus 3.1; p<0.001). Multivariate regression models, with Caucasian set as the reference group, showed higher post-procedure length of stays for African Americans (p<0.001) and Asians (p=0.026), and higher ICU days for African Americans (p<0.001) and Asians (p=0.003).

Conclusion Evidence from the NVQI-QOD registry suggests that there are several racial disparities in stroke thrombectomy management and outcomes, with minorities exhibiting increased post-procedural NIHSS, length of stay, and ICU days. Although African Americans were noted to suffer less in-hospital mortality compared to Caucasians, this did not translate into increased odds of a favorable clinical outcome at 90 days.

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