symptomatic and asymptomatic carotid artery stenosis. However, existing literature on readmission after these procedures is limited. In this study, we characterize the rate and causes of 30 and 90-day unplanned readmissions after CEA and CAS for patients with asymptomatic stenosis.

Materials and Methods Data was extracted from the Nationwide Readmissions Database spanning 2010 to 2015. The patient population consisted of adult patients who underwent CEA or CAS with a primary diagnosis of occlusion and/or stenosis of a carotid artery without mention of cerebral infarction or TIA. Non-elective readmission within 30 and 90 days were identified and readmission/retreatment rates for CEA vs CAS were also compared.

Results Of 485,838 patients treated and discharged alive, 28,336 (5.8%) patients were readmitted within 30 days, and 41,042 (10.0%) patients were readmitted within 90 days. The most common primary diagnoses for non-elective readmission within 30 and 90 days, respectively, were cerebral artery occlusion with infarct (3.9%, 3.5%), carotid artery stenosis/occlusion without infarction (2.8%, 4%), myocardial infarction (3.7%, 3.5%), hematoma (3.5%, 2%), TIA (2.9%, 2.7%), septicemia (2.9%, 3%) pneumonia (2.9%, 3%) and acute kidney failure (2.1%, 2.4%). The 30 and 90 day non-elective readmission rate for CEA vs CAS was 5.7% vs 6.8% (p<0.0001) and 9.7% vs 12.2% (p<0.0001), respectively. The 30 and 90-day non-elective retreatment rates for CEA vs CAS were 0.16% vs 0.20% (p=0.0431) and 0.38% vs 0.50% (p=0.0001), respectively (figure 1).

Conclusion Common reasons for 30 and 90-day non-elective readmission after CEA or CAS for asymptomatic stenosis were cerebral artery occlusion with infarct, myocardial infarction and hematoma. Rates of non-elective readmission/retreatment after 30 and 90-days were higher for CAS than CEA.