The Vascular Quality Initiative (VQI) is a collaborative of regional quality groups collecting and analyzing data to assess quality of care and determine best practices in vascular surgery. The VQI collects perioperative, postoperative events at discharge and one-year follow-up data to generate real-time benchmarked reports. We hypothesized that collection of postoperative data at discharge may be underestimating critical quality measures of the 30-day benchmark.

Methods

Consecutive carotid endarterectomy (CEA) cases performed at our institution between 1/1/2000 and 12/31/2016 were retrospectively reviewed. Perioperative events and 30-day readmissions were recorded.

Results

The data on 2571 CEA cases performed during the study period (mean age 71.28±9.17, 57.1% male, 36.5% symptomatic) were analyzed for this study. The in-hospital stroke, myocardial infarction (MI) and death rates were 1.75%, 1.17%, and 0.62% respectively; the stroke, MI and death (SMD) composite endpoint rate was 3.07% (4.58% for the symptomatic and 2.20% for the asymptomatic cohort). The reintervention rate was 1.59% (0.27% for stroke, 1.32% for neck hematoma). Nerve injury was reported in 2.64%.

When assessing the 30-day outcomes stroke, myocardial infarction and death rates were 2.37%, 1.79%, and 1.01% respectively; SMD rate was 4.47% (6.82% for the symptomatic and 3.12% for the asymptomatic cohort). The reintervention rate was 1.98% (0.35% for stroke, 1.59% for neck hematoma). Compared to the in-hospital SMD and reintervention rates, the 30-day ones were 37.1% and 21.8% higher.

7.90% of patients had a 30-day readmission: 31.0% for cardiopulmonary complications, 14.3% for neurological events, 10.3% for headache or dizziness, 9.9% for hematoma or bleeding and the remaining were for various other reasons.

Conclusions

Critical postoperative quality measures of the VQI are underestimated in patient undergoing carotid endarterectomy when the data is confined to the in-hospital outcomes. Extension of the observation period to the 30-day time point should be considered.

Author Disclosure Block: