

## **THE NERVE OF IT ALL! IMPROVING COMPLIANCE FOR PERIPROCEDURAL NEUROLOGICAL ASSESSMENTS FOR CAROTID ENDARTERECTOMY (CEA) AND CAROTID ARTERY STENT (CAS) PATIENTS**

Team Leader: Kevin Fogarty RN BSN ENC  
University of Michigan, Ann Arbor, Michigan

Team Members: Anne McLeod RN DNPc, Kirk Romans RN BSN,  
Denise O'Brien RN DNP CNS CPAN CAPA FAAN, Mary Jo Kocan RN MSN,  
Nancy Strzyzewski RN MSN CPAN CAPA, Sarah Easthope RN BSN, Theresa Hosey,  
Dr. Aditya Pandey, Dr. Nicholas Osborne, Dr. Laurel Moore, Dr. Eric Adelman,  
Jenevra Foley BS RHIA, Tiffany Hoang RN BSN

**Background Information:** Stroke is a major comorbidity for CEA/CAS patients (3%-6%) periprocedural<sup>1</sup>. Patients require stringent monitoring post procedure (vital signs & neurological checks) to assess for neurological decline, initiate expedited treatment as necessary for improved patient outcomes. Post assessment auditing demonstrated 37% compliance with documentation of neurological assessments.

**Objectives of Project:** Improve periprocedural assessment neurological check compliance to greater than 90% within 6 months.

**Process of Implementation:** Multiple Gembas were performed. The identified gaps & needs were competing order sets between departments, documentation issues, lack of educational resources, reminder prompts and reference tools. The interventions included an ad hoc meeting with Anesthesia, Neurosurgery and Vascular Surgery to standardize post op CEA/CAS order sets among services, educating staff how to wrench in the Neuro Assessment flow sheet in MiChart, (EPIC), educational programming with multimedia resources, unit based training, bedside coaching and development and dissemination of bedside reference guides & pocket cards. Timely audit and email results provided nurses with immediate feedback. To maintain & sustain compliance, a mandatory MLearning module is to be developed.

**Statement of Successful Practice:** Evaluation was completed using a survey tool designed specifically to monitor the neurological assessments for CEA/CAS periprocedurally. Compliance with periprocedural monitoring increased in the Cardiovascular Center (CVC) Post Anesthesia Care Unit (PACU) within 6 months from 37% to 93% and continues to rise. Compliance with periprocedural monitoring increased in the University Hospital (UH) PACU sees lower volumes of carotid patients & has more staff. Reaching compliance will take additional effort and time.

**Implications for Advancing the Practice of Perianesthesia Nursing:** Nursing is on the frontline of patient care and in the best position to monitor for neurological changes periprocedurally. Improving compliance with monitoring adds quality and safety to patient outcomes and demonstrates professional practice.