INTRODUCTION

- The national average from dying from a stroke is 37.2% but in Eastern North Carolina the risk of dying from a stroke is greater than 50%.
- In recent years protocols have been developed in many emergency departments to improve response time, improve emergent stroke recognition, and provide more streamlined care. This is commonly referred to as a "code stroke" upon presentation to the emergency department.
- This present a massive financial cost on both patients and health-care systems.

In this retrospective, cross sectional, observational analysis we studied adult patients that present to Vidant Medical Center Emergency Department with a code stroke activation between 1/1/2015 and 12/31/2019.

METHODS AND DATA COLLECTION

- Of the patients who met inclusion criteria, many variables and values were collected from each encounter for further analysis including:
  - Demographics: age, sex, race, ethnicity, insurance status
  - Times: door to CT, door to TPA, symptom onset, length of stay in the hospital, length of stay in the ICU
  - Medical Histories Of: stroke, liver disease, end stage renal disease, diabetes, atrial fibrillation, sedentary lifestyle, cancer, dyslipidemia, hypertension, clotting disorder, patent foramen ovale
  - Social Histories Of: cocaine use, IV drug use, smoking
  - Medication Histories: anticoagulants, antplatelets, oral contraceptive pills, hormones, chemotherapeutics, insulin
  - Diagnostics: CT results, CTA results, CT Perfusion results, MRI results, stroke panel values, vital signs
  - Interventions & Outcomes: tPA administration, thrombectomy performed, cranial decompression performed, final outcome, ED diagnosis, discharge diagnosis
  - Scores: Initial NIHSS by Emergency Department & Stroke Team, NIHSS at discharge, mRS at discharge

- The necessary sample size for this study was calculated to be 341 using STATA®14 assuming an alpha of 0.05 and a power of 0.9.

- A logistical regression model will be used to determine an NIH stroke scale level as well as identify variables and values that are predictive of a stroke.
  - Thus far, we have successfully completed review of 1283 patient charts. 339 of these charts were activated code strokes and thus were our target population.

HYPOTHESIS

We hypothesized that by studying code stroke activations and outcomes in the ED, that we would be able to identify predictor variables indicative of a code stroke activation for a true stroke diagnosis.

NIH Stroke Scale

![NIH Stroke Scale](Image)

Methods and Data Collection

- The NIH Stroke Scale is a 15 item tool for assessing stroke severity. It is the standard tool used to assess stroke severity.
- The scale ranges from 0 to 45, with higher scores indicating more severe stroke.
- The NIH Stroke Scale has been shown to be a useful tool for quickly assessing stroke severity.
- The NIH Stroke Scale has been used in many studies to assess stroke severity.
- The NIH Stroke Scale has been shown to be predictive of clinical outcomes.

![NIH Stroke Scale Image](Image)

REFERENCES


ACKNOWLEDGEMENTS

Funding provided by the Summer Scholars Research Program at the Brody School of Medicine. SpecialThanks to Dr. Nicholas Russell for the creation of data collection tool, along with Allison Mainhart, Dr. Cassandra Bradby, and Dr. Kori Brewer for their mentorship and guidance.