**Purpose:** The purpose of this research project was to examine the effectiveness of a directed educational intervention as it relates to identified gaps in stroke protocol knowledge.

**Background:** Registered Nurses who assess and treat the acute stroke patient must be equipped with the knowledge to provide timely and appropriate care to the acute stroke patient.

**Participants:** The participants in this study included 33 Registered Nurses from the Emergency Department and the Intensive Care Unit of a Critical Access Hospital in Indiana.

**Methodology:** Quantitative Analysis was used to differentiate the mean scores before and after an intervention to assess the clinical nurse knowledge as it pertains to the nurses’ stroke protocol knowledge.

**Data Collection Tool:** The tool used for this project was a custom designed 20 item quiz related evaluating stroke protocol knowledge.
- 10 Multiple choice questions
- 5 True/False questions
- 5 Fill in the blank questions

**Research Question:** How will directed education enhance stroke protocol knowledge levels of ED and ICU nurses that care for the acute stroke patient?

**Research Hypothesis:** Based upon identified gaps in stroke protocol knowledge, a focused educational intervention can be effective at increasing the level of nurse knowledge.

**Final Results:** Data analysis indicated a positive gain in nurse knowledge when scores were compared between the pre and post-educational intervention. The mean score prior to participation in the educational intervention was 52.3%. The mean score after the intervention was 96.5% which indicated an increase of 44.2%. Data analysis also indicated that there was an increase in the number of perfect scores achieved pre and post-intervention periods from 0 to 15.

**Conclusion:** The data analysis supported the hypothesis of the researcher. Through use of the pre-education survey results a directed educational intervention can be developed and delivered to yield an increase in stroke protocol knowledge.