Increase in imaging volume after Comprehensive Stroke Center Certification
AUTHORS & DISCLOSURES

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• The authors have no disclosures.
PURPOSE

To determine the change in stroke imaging and neuro interventional procedure volumes post certification as a Comprehensive Stroke Center (CSC) by The Joint Commission.
MATERIALS & METHODS

• UAMS became the first and only provider in the state of Arkansas to be certified as a CSC by the Joint Commission in July 2018.

• We performed a retrospective review of PACS and Electronic Medical Records between March and November 2018.

• We then analyzed the neuro-imaging (CT and MRI) and neuro intervention volumes before and after certification.
RESULTS

- 338 CT brain perfusion (CTP) studies were performed between March and November 2018.

- Mean and median number of CTP studies per month increased from 21 and 20.5 respectively before certification to 53.5 and 48.5 after certification.
Number of CT perfusion studies per month
RESULTS

• 241 out of 338 patients had an MRI brain performed within 72 hours of the CTP study.

• Mean and median number of MRI brain studies per month increased from 16 and 16 respectively before certification to 37 and 33 after certification.
Number of MRI brain studies performed per month within 72 hrs of the CTP study
RESULTS

• 79 out of the 338 patients had a mechanical thrombectomy performed based on the CTP results.

• Mean and median number of interventions per month increased from 6 and 5 respectively before certification to 12 and 12 after certification.
Number of interventions performed per month based on CTP results
Total number of CT perfusions, MRIs, and endovascular interventions performed per month before and after certification in July 2018.
DISCUSSION

• Recent research suggests that outcomes for stroke patients are better when treated at a comprehensive stroke center. (1,2)

• There has been an increasing trend in the number of neuro interventional procedures performed in stroke patients over the last decade. (3)

• There is a paucity of data about change in neuro imaging volumes at a CSC after certification.
CONCLUSION

• Our study showed that Comprehensive Stroke Center Certification may lead to a substantially increased number of cases brought to the CSC and the volume of neuro-imaging thus generated.

• Diagnostic radiology departments should be prepared in advance to absorb this increase in volume to provide high quality service.


THANK YOU