

Background

The field of neurology remains largely outpatient, despite an increase in acute interventions in fields such as status epilepticus and stroke.¹⁻⁴ In a large tertiary center such as Jefferson, it is imperative that we continually seek ways to optimize outpatient care, improve patient satisfaction, and reduce the burden on inpatient resources.

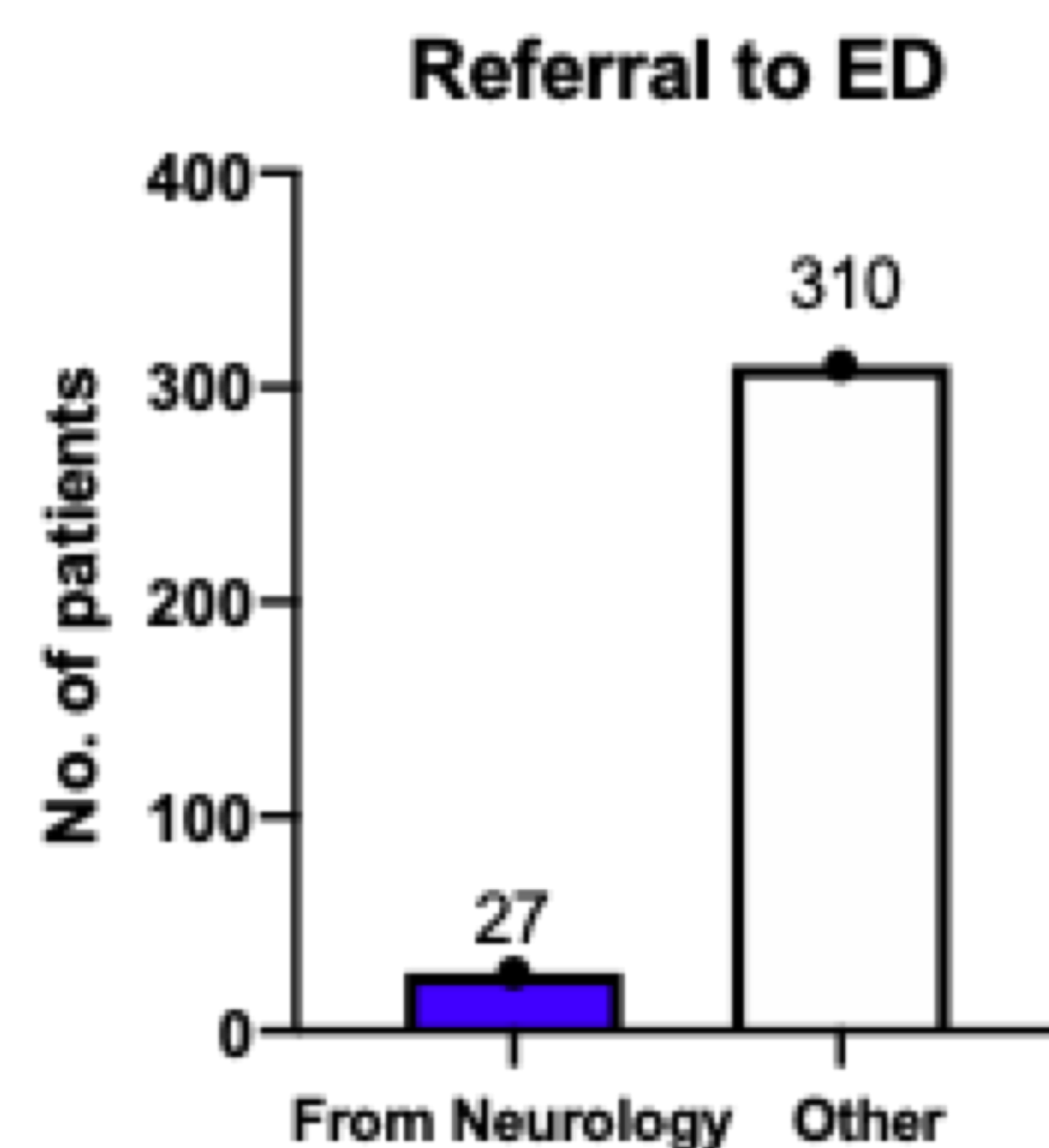
Objective

The goal of this project is to investigate if established neurology patients are appropriately referred to the emergency room. We suspect that there are patients that could be more effectively triaged to prevent unnecessary visits to the emergency department. If this is the case, implementing an intervention such as offering expedited visits or contingency plan, may reduce non-emergent inpatient consultative services.⁵ This would also improve outpatient communication and decrease utilization of both ER and patient resources.

Methods

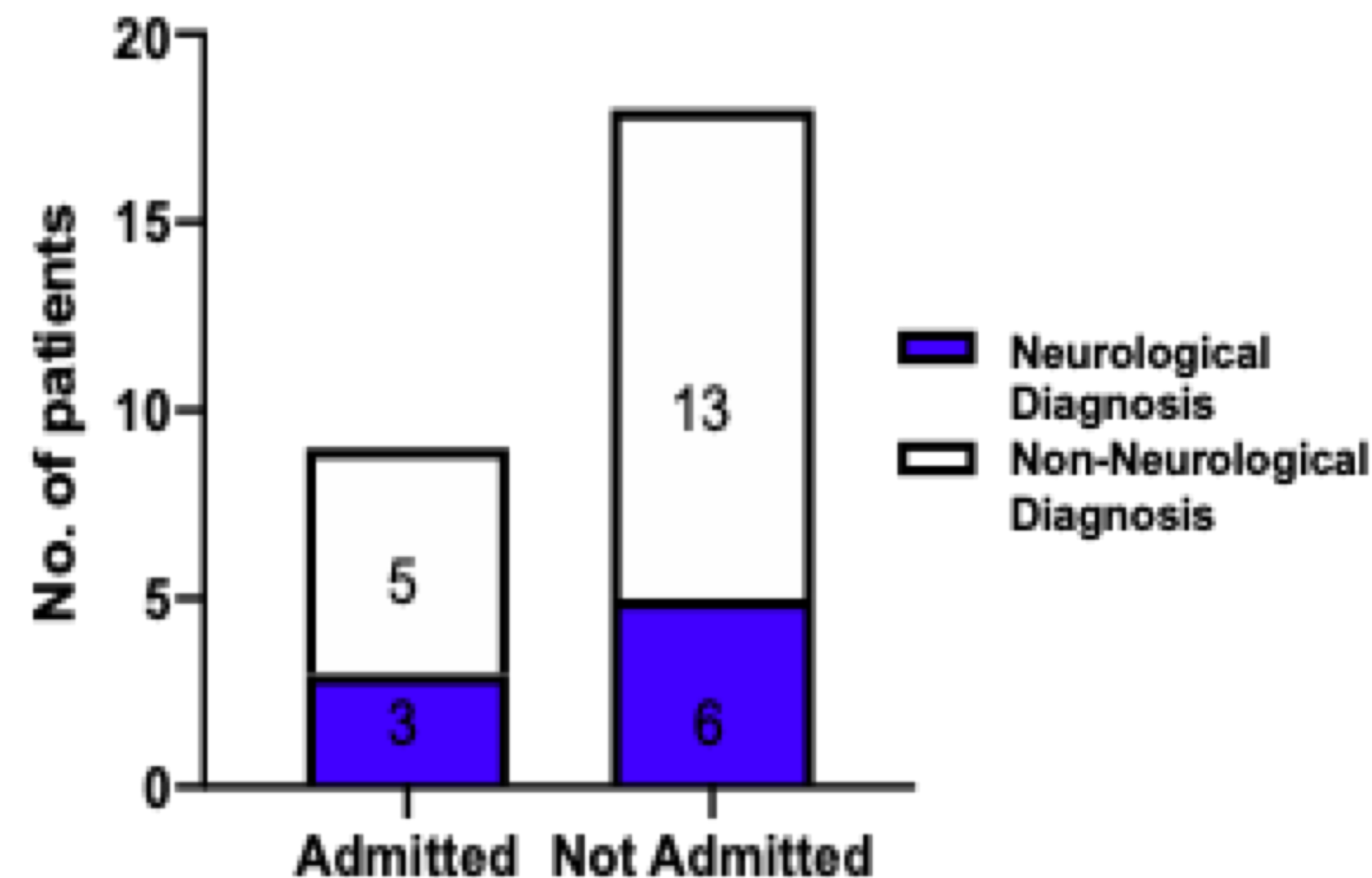
We generated an Epic (EMR) request from Nov 2018 to Nov 2019 of ER visits associated with a Jefferson Neurologist. There were originally 1,999 patients connected to neurology outpatient providers seen in the ED. We further narrowed down the data to the last three months (September to November) with a total of 518 patients. We then removed the patients who did not see a neurologist in the last 180 days, leaving us with 337 patients out of 19,003 total ED visits for this three month period. Statistics and graphs completed with Prism 8 and Excel.

Results



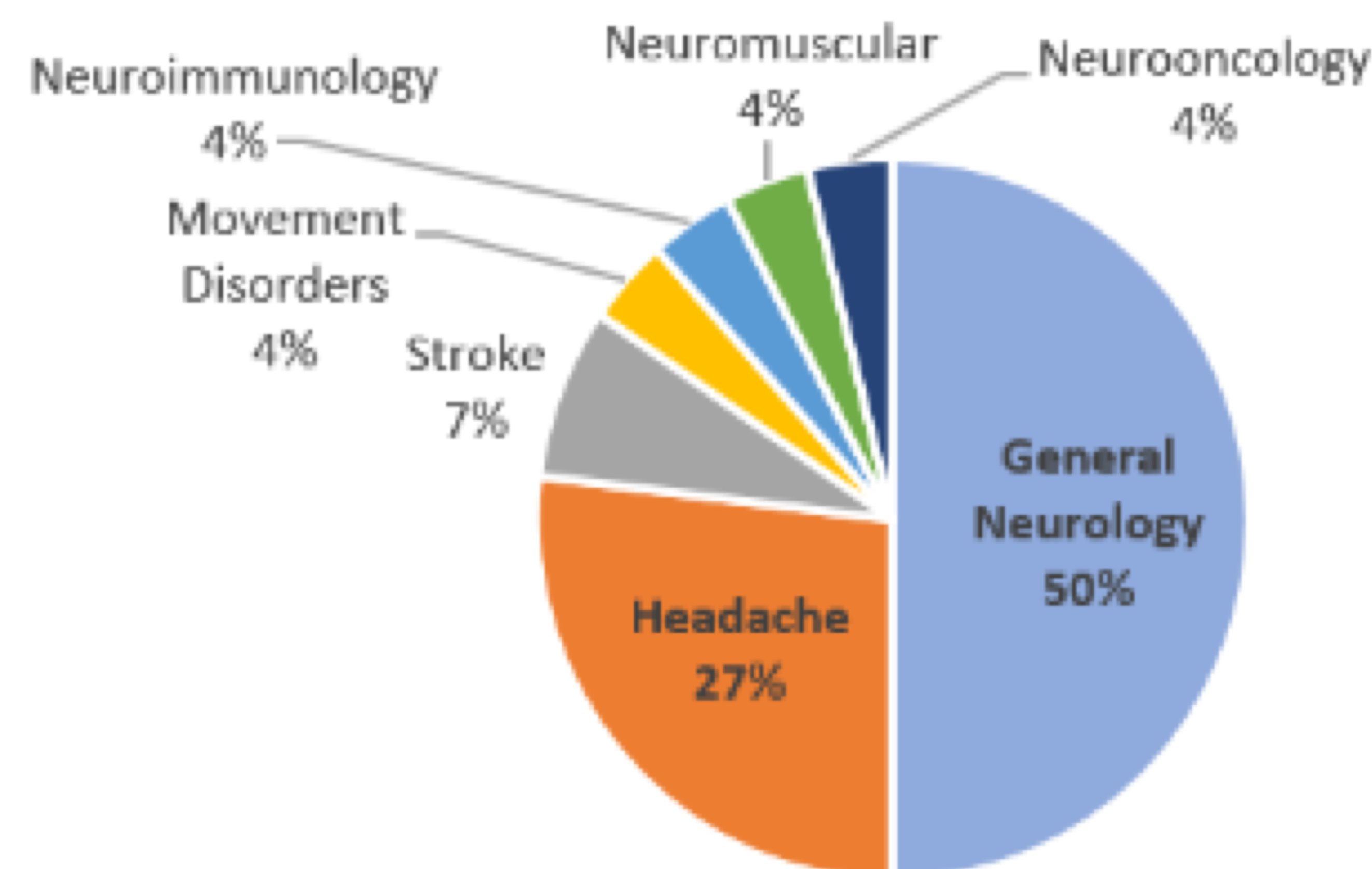
Graph 1: Distribution of established neurology patients who presented to the ED (n=337 in total).

Disposition of pts referred from neurology



Graph 2: Disposition of established neurology patients who presented to the ED upon clinic referral (n=27 in total).

Referred to ED by Neurology Subspecialty



Graph 3: General neurology and headache patients comprise the majority of ED referrals from neurology.

Conclusions

The majority of patients referred by the neurology department to the ED did not have neurologic complaints. Of the 27 patients referred during a three month period, nine patients had an associated neurologic diagnosis, while three patients were admitted with a primary neurologic diagnosis. Ultimately, six patients in this 3 month period may have benefited from an additional triaging system or expedited visit.

Given the small number of patients who would have benefited from additional triage and/or an expedited visit, it is unclear if implementing a resource-intensive intervention such as urgent care clinic or “open scheduling” is warranted for already established patients referred by neurologists to the ED. However, the patients who are established neurology patients and referred by “other” sources to the ED, were the vast majority of patients captured, and *this* population warrants further research to determine if an intervention such as urgent care clinic or open scheduling would be beneficial. Among the patients not admitted to the ED, it also needs to be determined if they required services of an ED visit (such as a procedure, test, or IV medication) without an admission.

Other limitations of this study include its small sample size. Many patients travel for outpatient neurology at Jefferson and may have instead presented to local hospitals. This may underpower the number of neurology referrals to the Jefferson ED.

References

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¹These authors contributed equally to the work