Inpatient Teleneurology Consultation Service in a Rural Hospital Following Physician Shortage

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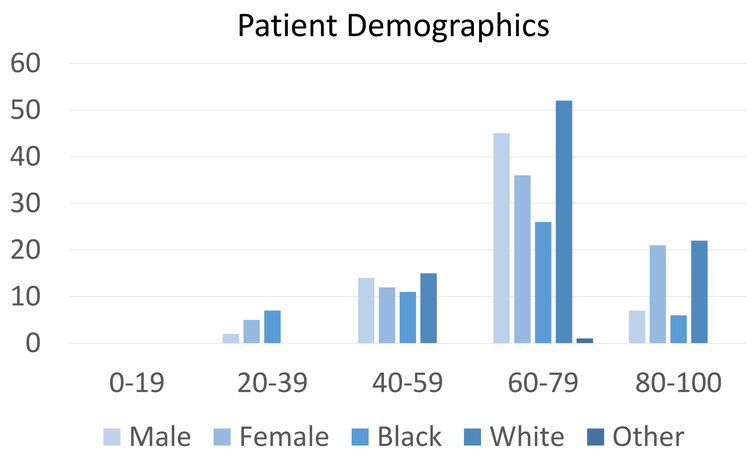
BACKGROUND

The COVID-19 pandemic prompted rapid transformation in healthcare delivery and telehealth services in the United States. Disparities were identified involving geographic access to Neurologists, where 11% served 20% of patients in rural communities. Audio-video consultations can bridge gaps in specialist availability and improve healthcare access.

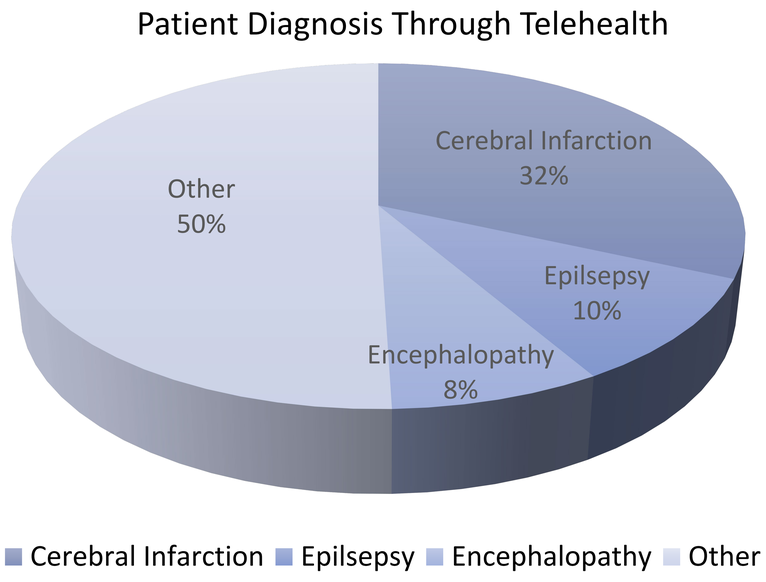
PURPOSE

UMMC collaborated with South Central Regional Medical Center to implement a hybrid care model among rural Neurology inpatients in Laurel, MS. We presented the following data-driven strategies to overcome the geographic barriers and care disparities, seeking to alleviate the inconveniences with care-seeking behavior, mitigate challenges to transportation, and time constraints, while providing adequate quality care.



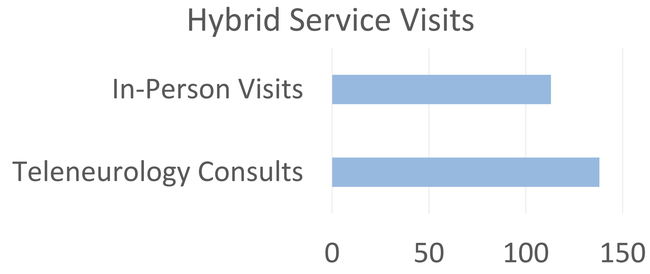
METHODS

- Retrospective, observational, quality improvement study evaluating telehealth utilization among inpatient Neurology patients between January 18-June 30 of 2023.
- Equipment and support provided to SCRMC by UMMC's Department of Neurology and Telehealth Center of Excellence.
- Hybrid model consisted of 15 days of in-person neurology consults and follow up visits followed by 15 days of patient care by a remote teleneurology team.
- 1 neurologist was available for in-person care, while 8 neurologists participated as part of the remote teleneurology team.
- Data were collected on patient demographics, diagnoses, service types, and care utilizations.



RESULTS

- 138 of 251 total patients seen exclusively through teleneurology team.
- 4 patients required transfer to higher level of care.
- Common diagnoses via telehealth: cerebral infarction (32%), epilepsy (10%), and encephalopathy (8%).
- 61% of teleneurology patients were discharged home with self-care or home health care.
- Other diagnoses included myocardial infarction, acute kidney injury, and sepsis, among others.



CONCLUSION

An inpatient hybrid Neurology service shows the potential of Teleneurology services to provide access to specialty care to underserved populations. Teleneurology services provide comparable diagnoses in rural and resource-limited settings. Future research may evaluate long-term clinical outcomes and patient satisfaction ratings for this service. Telehealth services can help bridge geographical gaps and ensure Neurology specialist care is accessible to individuals residing in underserved communities.

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