

Background

- Analysis of data from 1960 to 2017 shows an incidence rate of 226.98 cases of central nervous system (CNS) tumors per 100,000 population in Africa
- Nigeria has a significantly higher number of CNS tumor cases than other African countries ¹
- CNS tumors are the fourth most common type of pediatric tumor in Nigeria ²
- Despite the prevalence of pediatric CNS tumors in Nigeria, there is limited literature on pediatric neuro-oncologic care

Goal

- This study aims to provide an epidemiological overview of the presentation, diagnoses, treatment modalities, and outcomes of pediatric patients with CNS tumors in Nigeria from 1962 to 2023

Methods

- An initial review of literature on pediatric Neuro-oncology care in Nigeria published between January 1962 and December 2021 was conducted using PubMed, Global Index Medicus, Embase, Scopus, African Journals Online, and Web of Science
- An extended review was conducted to include data from January 2022 to December 2023, focusing on pediatric neuro-oncologic care after initial extraction of CNS tumor
- Patient demographics, histological findings, treatment modality, complications, and patient outcomes were analyzed
- A risk of bias assessment was performed on all studies included

Results

Patient Sex	Number of Patients	Percentage (%)
Female	220	43.39
Male	287	56.61
Median DBP:	Patient Age Range	Mean Patient Age, years (SD)
1-6 months	0-18 years	8.68 (4.32)

Figure 1: Clinical Presentation

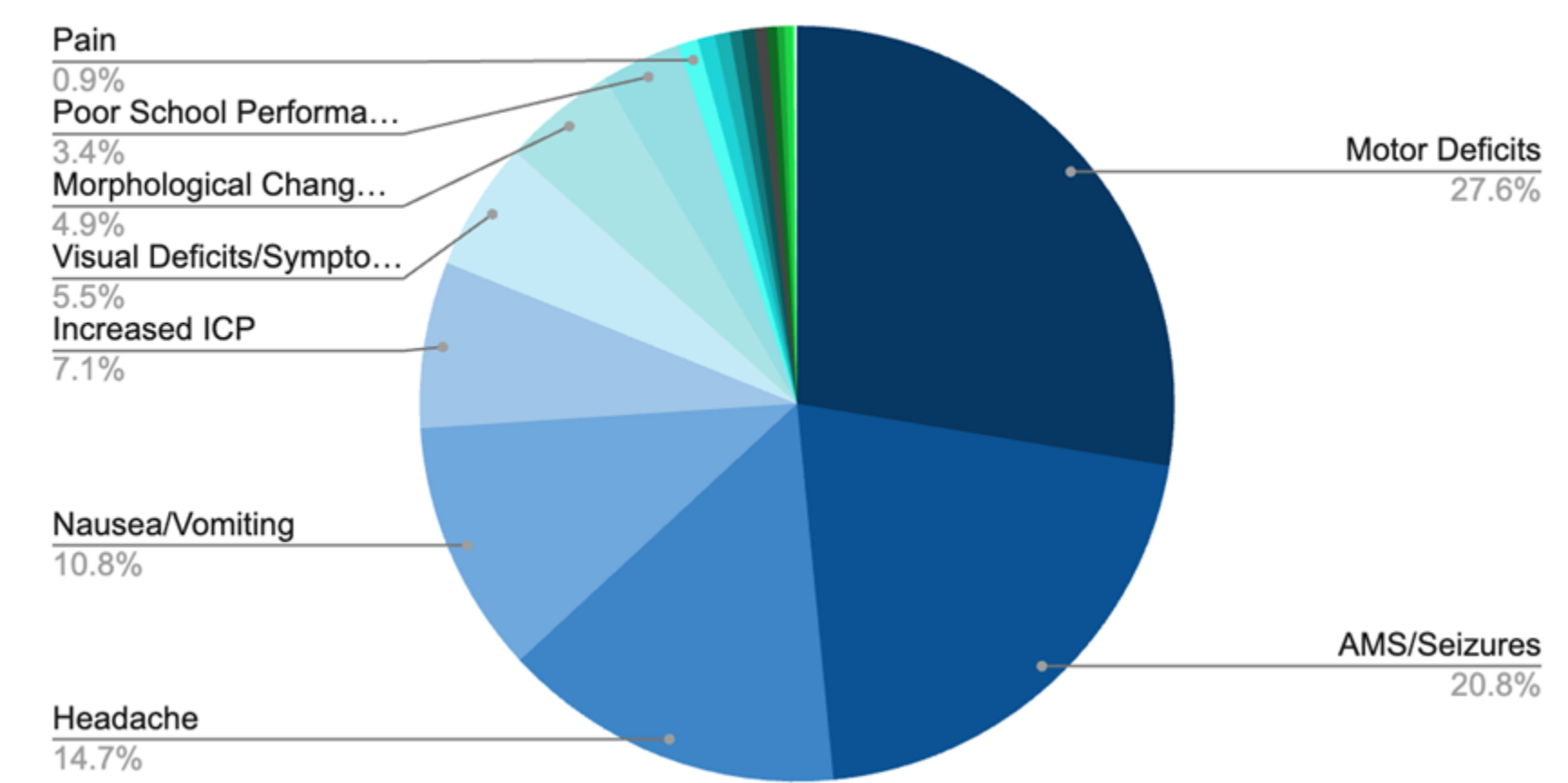


Figure 2: Clinical Diagnoses

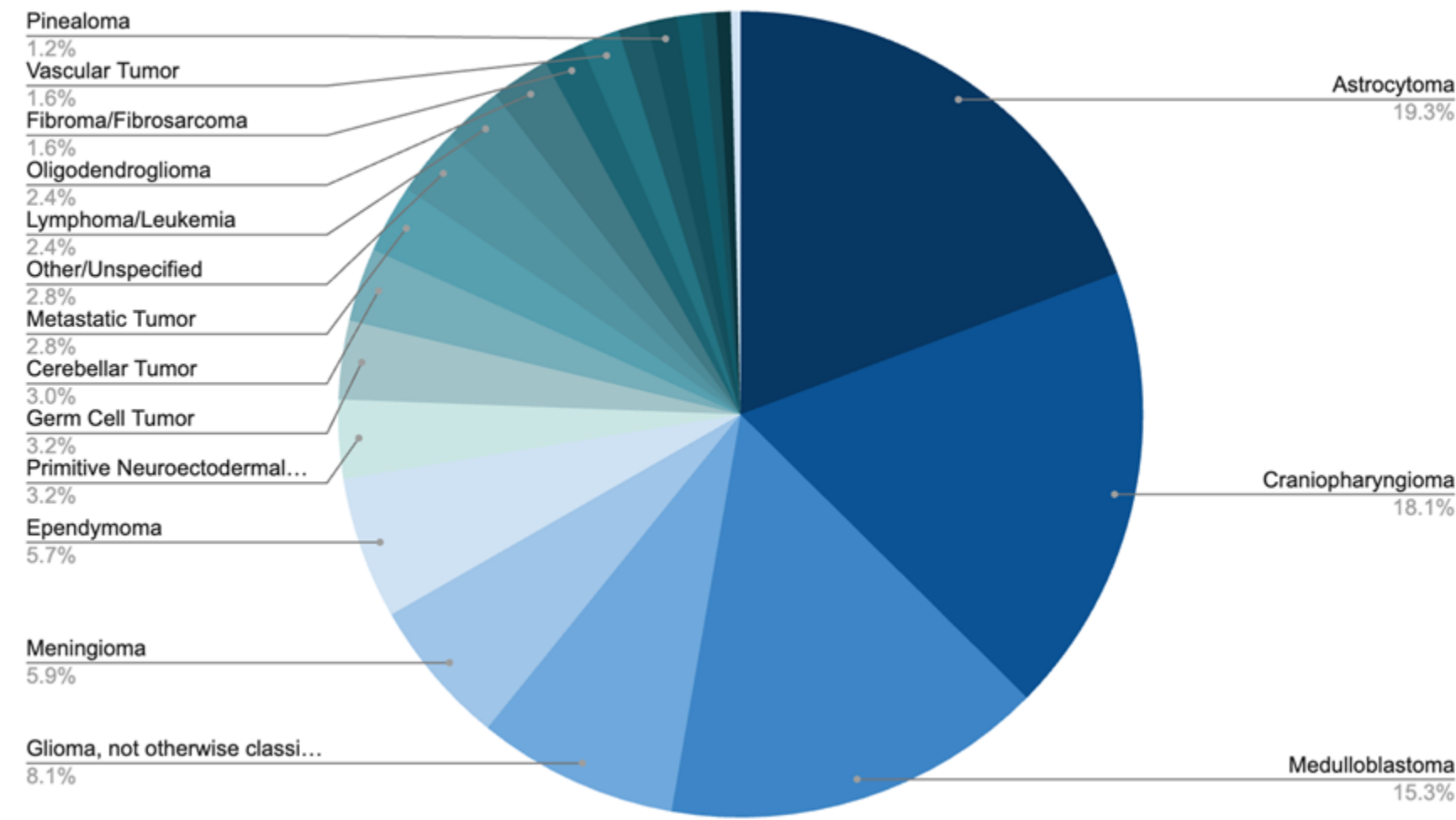


Figure 3: Treatment Modalities

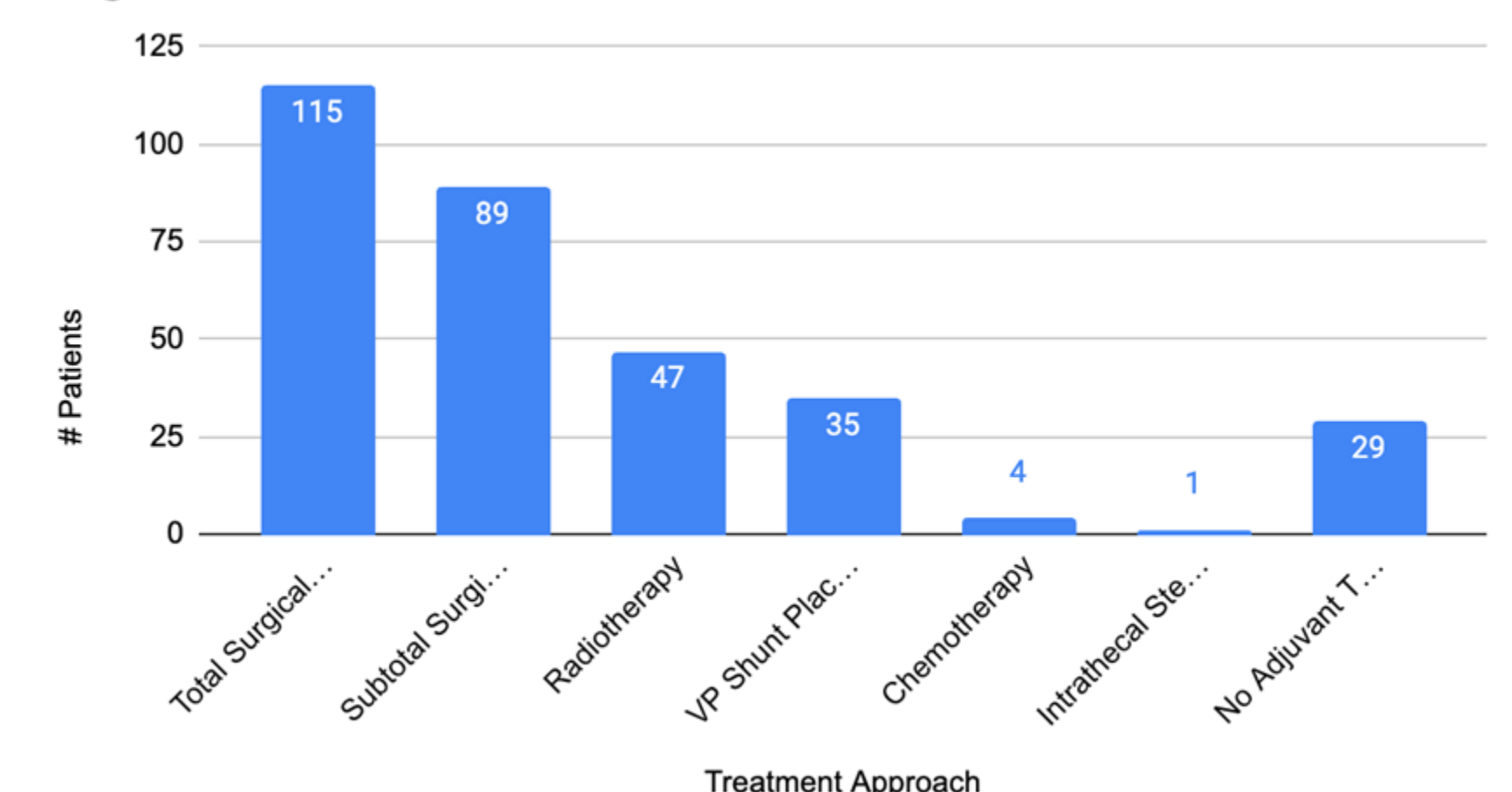
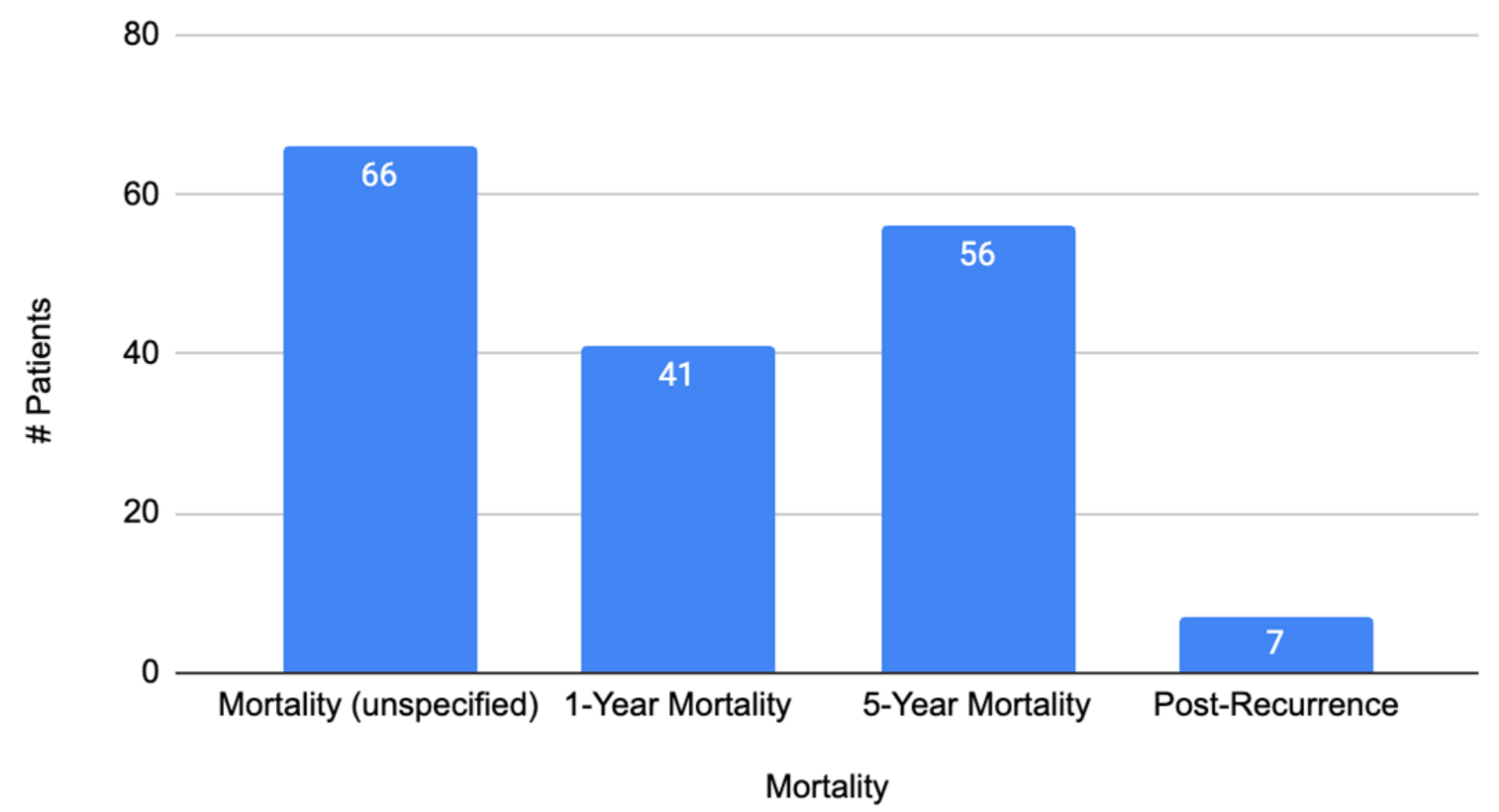


Figure 4: Mortality Rates



Discussion

- Results revealed systemic barriers preventing pediatric patients from seeking and receiving the proper neuro-oncologic care in Nigeria
- Policy changes suggested to strengthen tumor surveillance and guide resource allocations

Conclusion

- Despite advancements in both diagnostic tools and treatment options, outcomes for the highlighted patient population remain relatively poor
- Further studies are needed to establish definitive burden of pediatric CNS tumors on the Nigerian population

References

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- Ogun GO, Adeleye AO, Babatunde TO, et al. Central nervous system tumours in children in Ibadan, Nigeria: a histopathologic study. *Pan Afr Med J.* 2016;24:34. Published 2016 May 9. doi:10.11604/pamj.2016.24.34.9344