

Twenty-Four-Month Survival Among Patients with Cryptococcal Antigenemia Enrolled in Malawi's Advanced HIV Disease Program: A Retrospective Cohort Study

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BACKGROUND

- Cryptococcal meningitis remains a major cause of HIV-related mortality among people with advanced HIV disease (AHD) in sub-Saharan Africa.
- We assessed 24-month survival and factors associated with mortality among AHD clients with cryptococcal antigenemia enrolled in Malawi's AHD program

METHODS

- We conducted a retrospective cohort study using routine program data from 22 health facilities in central Malawi.
- All AHD clients with confirmed serum CrAg positivity enrolled between January 2021 and September 2024 were included.
- Survival up to 24 months was estimated using Kaplan–Meier methods.
- Factors associated with mortality were assessed using Cox proportional hazards regression.

Main Findings



Nearly three-quarters of CrAg-positive AHD clients survived to 24 months under routine program conditions, but early mortality remained high.



Absence of neurological signs was independently associated with a significantly lower mortality risk.

RESULTS



- 102 patients included (127 person-years follow-up).



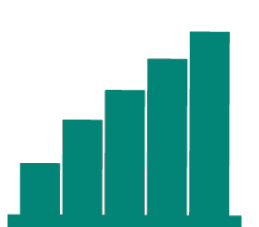
- Median age was 37 years, and 25.5% had TB co-infection.



- Lumbar puncture was performed in 64.7%, among whom 30.3% were diagnosed with cryptococcal meningitis.



- Overall mortality was 19.7 deaths per 100 person-years, with 75% of deaths occurring within the first six months.

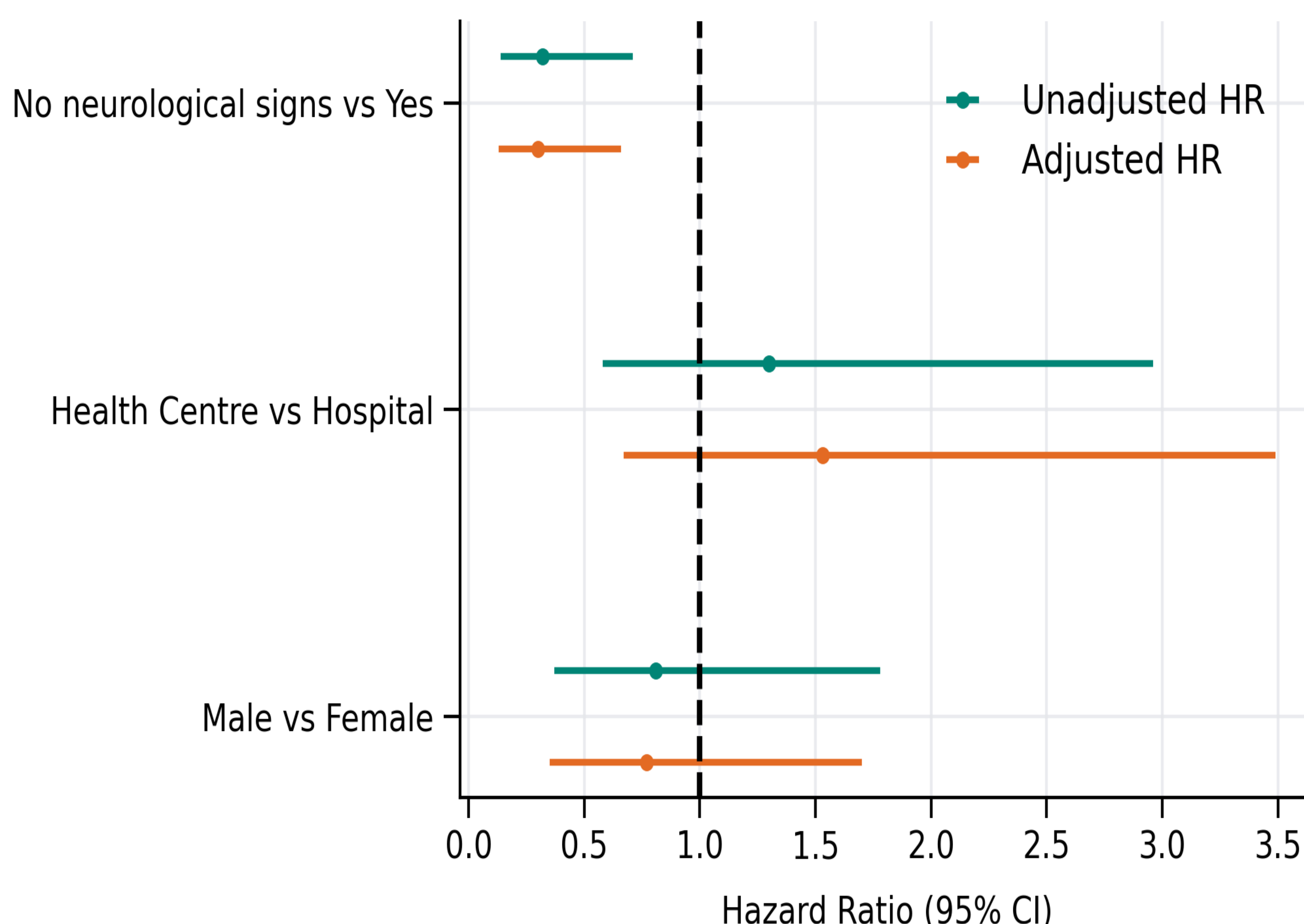


- Estimated 24-month survival was 73%.



- In multivariable analysis, absence of neurological signs at enrollment was independently associated with a significantly lower mortality risk (aHR 0.30, 95% CI 0.13–0.66).

Figure 1: Cox proportional hazards analysis of factors associated with mortality over 24 months among AHD patients with cryptococcal antigenemia (forest plot)



CONCLUSIONS

- Twenty-four-month survival among patients with cryptococcal antigenemia in routine AHD programs was high; however, substantial early mortality was observed despite high fluconazole prophylaxis coverage.
- Incomplete CM diagnostic evaluation and the strong prognostic value of neurological signs highlight missed opportunities for early risk stratification and appropriate management.
- Strengthening access to lumbar puncture, prioritizing close early follow-up, and targeting patients with neurological symptoms may further reduce mortality within routine AHD programs.

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