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Titel des Beitrags: Rapid diagnostic tests for neurological infections in central Africa.

Abstract: Infections are a leading cause of life-threatening neuropathology worldwide. In central African countries affected by endemic diseases such as human African trypanosomiasis, tuberculosis, HIV/AIDS, and schistosomiasis, delayed diagnosis and treatment often lead to avoidable death or severe sequelae. Confirmatory microbiological and parasitological tests are essential because clinical features of most neurological infections are not specific, brain imaging is seldom feasible, and treatment regimens are often prolonged or toxic. Recognition of this diagnostic bottleneck has yielded major investment in application of advances in biotechnology to clinical microbiology in the past decade. We review the neurological pathogens for which rapid diagnostic tests are most urgently needed in central Africa, detail the state of development of putative rapid diagnostic tests for each, and describe key technical and operational challenges to their development and implementation. Promising field-suitable rapid diagnostic tests exist for the diagnosis of human African trypanosomiasis and cryptococcal meningocerebralitis. For other infections-e.g., syphilis and schistosomiasis-highly accurate field-validated rapid diagnostic tests are available, but their role in diagnosis of disease with neurological
involvement is still unclear. For others—e.g., tuberculosis—advances in research have not yet yielded validated tests for diagnosis of neurological disease.