Title:

Which diagnostic to use and why? New insights into intestinal schistosomiasis along the shoreline of Lake Albert, Uganda

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Infection with intestinal schistosomiasis is typically common in children, particularly within regions of sub-Saharan Africa where environmental water contact is high and access to adequate sanitation is poor. Traditional diagnosis that visualise parasite ova parasitological methods of underestimate true prevalence and as control programmes progress, infection egg-tallies may also decline. Consequently, there is a need to develop better methods for detection of schistosomiasis, especially in countries such as Uganda whereongoing school-based control has taken place for over a decade. Against this country-backdrop, we investigate the application of novel diagnostics to shed light on current levels of infection across 5 primary schools within Buliisa District, Lake Albert. We evaluated parasitological- and serological-based methods alongside realtime PCR and focused upon examination of children of school-age (i.e. 5-10 vears). PCR-based methods explored the use of Tagman® assays on urine and faecal samples. We assessed the diagnostic congruence between methods and report that intestinal schistosomiasis is still pervasive within this lakeshore environment.