

Integrating vector control and test-and-treat with doxycycline as part of a multidisciplinary approach for the control and elimination of onchocerciasis: performance in *Loa loa* co-endemic South-West Cameroon

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Geographic overlap of the vector borne filarial parasites *Onchocerca volvulus* and *Loa loa* is a serious hindrance to the control and elimination of onchocerciasis. Annual, Community Directed Treatment with ivermectin (CDTi) is the current mainstay for onchocerciasis control. This has led to notable reductions in onchocerciasis infection and even the elimination of the disease in certain foci. However, in Central Africa, individuals with high levels of circulating *L. loa* microfilariae in their blood risk severe adverse reactions to ivermectin and evidence is emerging of reduced adherence to the CDTi strategy in areas of *L. loa* co-endemicity. Therefore, alternative strategies are urgently needed in areas where both *L. loa* and onchocerciasis occur, to enable elimination of onchocerciasis from Central Africa. The COUNTDOWN consortium is trialling co-implementation of doxycycline (a macrofilaricidal antibiotic that targets the obligate symbiotic bacteria *Wolbachia*), alongside localised vector biting rate reduction in the Meme river basin, South-West Cameroon. This multi-disciplinary approach is further supplemented by health economic and social science research around the acceptability, feasibility and cost-effectiveness of this alternative strategy. Here we present the study design and initial baseline findings from parasitological screening, vector susceptibility testing and vector species identification.