

Single versus multiple dose of mebendazole against hookworm infections

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Introduction



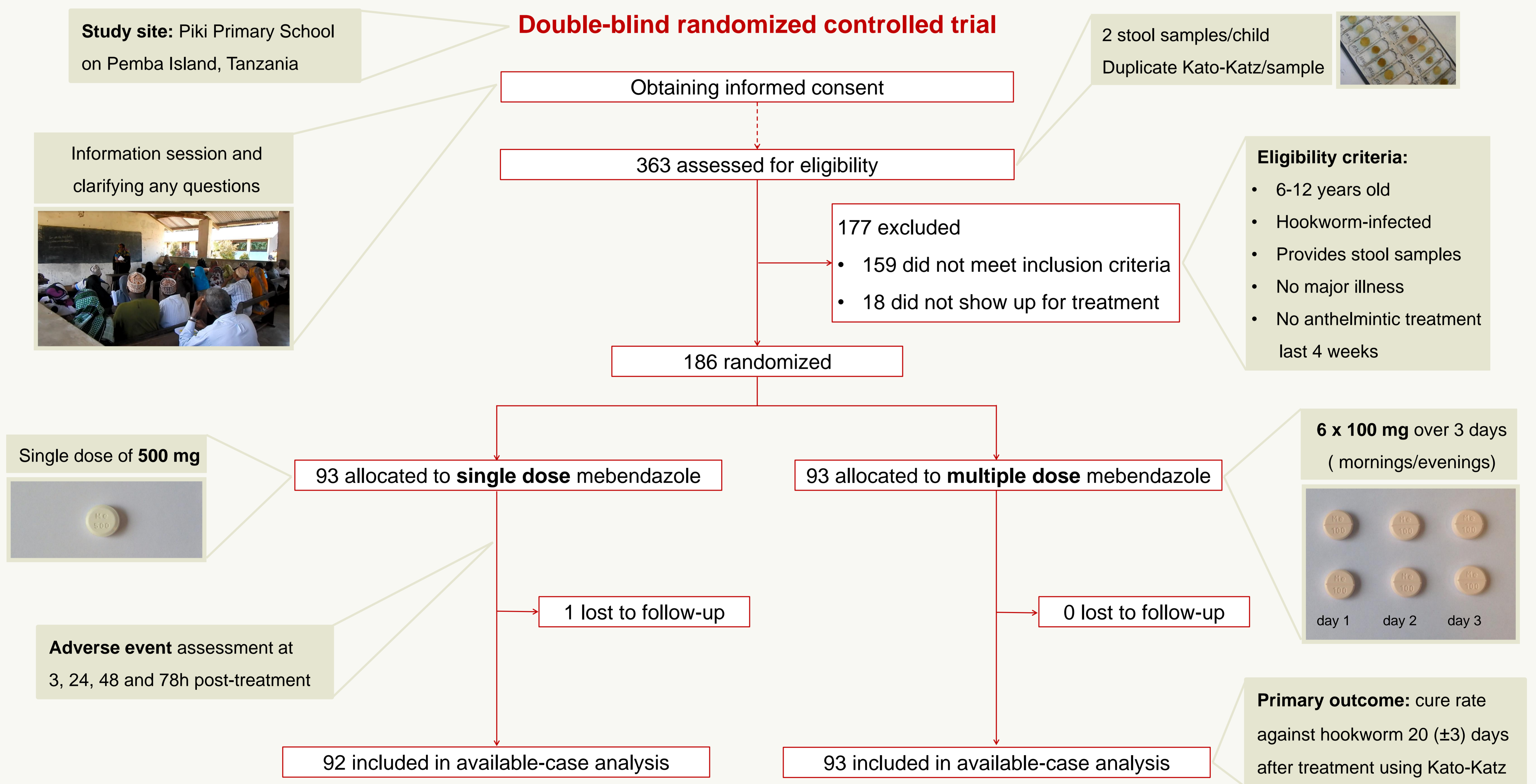
Still infects **500 million** people and **5.1 billion** are at risk of becoming infected

Consequences:
Anaemia and malnutrition which lead to impaired physical and cognitive development

Millions of 500 mg tablets of **mebendazole** donated/year, BUT: **efficacy is very low.**


We need better treatment options.

Methods



Results

Baseline prevalence: 58% hookworm, 37% *Ascaris lumbricoides*, 93% *Trichuris trichiura*

 Single-dose

92 infected at baseline → 80 infected at follow-up → **Cure Rate = 13%** (95% CI: 6.9-21.7)

Egg Reduction Rate (ERR) = 67% (95% CI: 51.5-78.6)

Results of concomitant infections:

***A. lumbricoides*:** cure rate = 100%, ERR = 100%

***T. trichiura*:** cure rate = 7%, ERR = 71%

 Multiple-dose

93 infected at baseline → 2 infected at follow-up → **Cure Rate = 98%** (95% CI: 92.4-99.7)

Egg Reduction Rate (ERR) = 99% (95% CI: 99.9-100)

Results of concomitant infections:

***A. lumbricoides*:** cure rate = 98%, ERR = 100%

***T. trichiura*:** cure rate = 43%, ERR = 98%

Conclusions

- The multiple dose is significantly superior to the single dose against **hookworm** and ***T. trichiura***
- We need to reconsider the usage of the single dose in mass drug administration programs, particularly in regions with persistently high prevalences such as Pemba Island