

# Preventing breastmilk HIV transmission using broadly neutralising monoclonal antibodies: one size does not fit all

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## Abstract

The prospect of preventing HIV infection with broadly neutralising monoclonal antibodies (bNAbs) has generated unprecedented enthusiasm in the scientific community and hope among people living with HIV around the world. HIV bNAbs could be a game changer in the prevention of HIV acquisition. Some of these bNAbs are being tested in early phase clinical trials, and the debate is now about the priorities for strategic large-scale efficacy trials. The prevailing view is that only a fixed combination of at least three bNAbs could prevent HIV, regardless of target populations or routes of transmission. We propose an alternative strategy consisting of evaluating the tolerability and efficacy of one or two bNAbs cocktails tailored to different target populations and indications. The rationale for this alternative strategy is based on ethical, pathophysiological and practical facts and is illustrated by the possibility of preventing HIV transmission through breastfeeding in high incidence/prevalence areas such as southern Africa. There is a prospect of eliminating paediatric HIV acquisition through breastfeeding by using single/dual long-acting bNAb regimens.

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