

# Mobile phone text messages for improving adherence to antiretroviral therapy (ART): a protocol for an individual patient data meta-analysis of randomised trials

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## Abstract:

**Introduction** Mobile phone text messaging is emerging as an important tool in the care of people living with HIV; however, reports diverge on its efficacy in improving adherence to antiretroviral therapy (ART), and little is known about which patient groups may benefit most from phone-based adherence interventions. We will conduct an individual patient data meta-analysis to investigate the overall and subgroup effects of text messaging in three recently published text-messaging randomised controlled trials. **Methods and analysis** Data from two Kenyan and one Cameroonian trial will be verified, reformatted and merged. We will determine pooled effect sizes for text messaging versus standard care for improving adherence to ART using individual patient random-effects meta-analysis. We will test for the interaction effects of age, gender, level of education and duration on ART. Sensitivity analyses will be conducted with regard to thresholds for adherence, methods of handling missing data and fixed-effects meta-analysis. Only anonymised data will be collected from the individual studies. **Ethics and dissemination** Ethical approval was obtained for the individual studies. The results of this paper will be disseminated as peer-reviewed publications, at conferences and as part of a doctoral thesis. This individual patient data meta-analysis may provide important insights into the effects of text messaging on ART adherence in different subpopulations, with important implications for programme implementation involving such interventions and future research. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-commercial License, which permits use, distribution, and reproduction in any medium, provided the original work is properly cited, the use is non commercial and is otherwise in compliance with the license. See: <http://creativecommons.org/licenses/by-nc/3.0/> and <http://creativecommons.org/licenses/by-nc/3.0/legalcode>