

Text messages help HIV patients stick to antiretroviral drug therapy

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Mobile phones could play a valuable role in helping HIV patients to take their medication every day, according to a new Cochrane Systematic Review. The researchers found that patients were less likely to miss doses if they were sent weekly mobile phone text message reminders.

Text messaging is increasingly being used as a means of support in health care, including to help promote attendance at clinics and hospitals, and to increase contact between [patients](#) and care workers. There is also some evidence that text messaging helps [tuberculosis](#) patients to take their daily medication. Now researchers say text messaging could be used as a tool to help millions of [HIV patients](#) on antiretroviral therapy (ART) stick to these regimens. ART can help these patients to feel better and live longer, but often comes with side-effects that make it difficult for some patients to take the medication every day. When patients miss their daily doses, it can result in the drugs no longer being effective and the patients could die.

The authors reviewed data from two Kenyan trials involving a total of 966 adult patients with [HIV](#). In the first trial, patients were sent short weekly text messages asking "Mambo?", meaning "How are you?", and were asked to respond within two days. The control group in this trial received standard care. In the second trial, patients received text messages on a daily or weekly basis and the messages were either long or short. The long message read "This is your reminder. Be strong and courageous. We care about you." The short message read simply "This is your reminder." Patients in this trial's control group were given mobile

phones but received no study-related communication.

Patients who received weekly text messages were better at adhering to their medication than those in control groups. A year after starting the first trial, the number who took at least 95% of their prescribed doses was higher than in the control group. In addition, more patients who received text messages had reduced levels of HIV in their blood. Nearly a year after the second trial began, the number of patients receiving short or long weekly text messages who took at least 90% of their prescribed doses was higher than in the [control group](#). However, daily text messages of any length did not help improve adherence. The results of this second trial were not statistically significant. Even so, when the results from both trials were combined, it was clear that patients who received weekly text messages of any length were better at adhering to their medication compared to those in the control groups.

"There is high-quality evidence for the benefit of sending weekly text messages to promote adherence to antiretroviral therapy," said lead author Tara Horvath of Global Health Sciences at the University of California, San Francisco in the United States. "Clinics and hospitals should consider using weekly text messaging as a way to ensure HIV patients stick to their antiretroviral therapy regimens."

According to the review, text messaging has the potential to make a significant impact on the HIV epidemic, especially because HIV is much less likely to be transmitted to sexual partners in patients who are taking their daily medication. "With the expansion of [mobile phone](#) networks worldwide, particularly in regions that are new to these technologies, text messaging interventions for HIV are rapidly becoming more feasible," said Horvath. "It is important that these trials took place in a low-income country, because most people with HIV live in the low-income countries of sub-Saharan Africa. However, we also need to find out whether the effects are replicated in higher income countries. Also, because these

trials included only [adult patients](#), it is important to learn whether text messaging will help adolescents on ART, as well as people who care for younger children on these regimens."

More information: Horvath T, Azman H, Kennedy GE, Rutherford GW. Mobile phone text messaging for promoting adherence to antiretroviral therapy in patients with HIV infection. *Cochrane Database of Systematic Reviews* 2012, Issue 3. Art. No.: CD009756. [DOI: 10.1002/14651858.CD009756](#)

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