

TXTALERT FOR PATIENT REMINDERS

BRIEF OVERVIEW

The biggest challenge for people with chronic conditions is to stick to their medication. For conditions that require lifelong treatment, like HIV and diabetes, patients go through many daily challenges. Some of these challenges include forgetting to take their drugs, feeling sick (nauseous) when they do take the drugs, and fear or reluctance to go to the doctor regularly, as this would potentially entail more drugs, more injections, blood samples, etc.

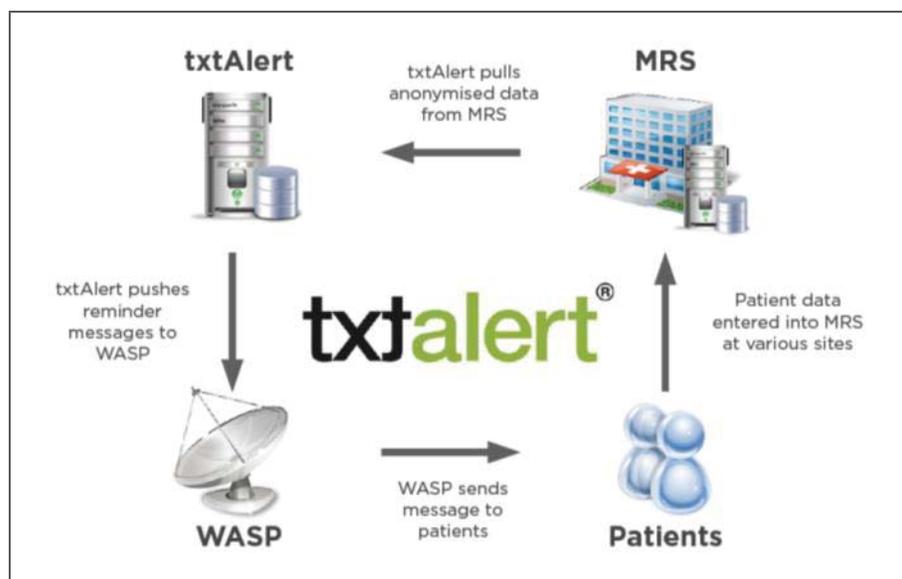
Drug resistance is a very dangerous and often life-threatening condition where prescribed treatments cannot successfully treat a condition and cure the patient. Drug resistant tuberculosis (TB) has very high fatality rates. Drug resistance is generally preventable if patients stick to, and complete, their prescribed treatment.

Another huge challenge is to have patients come to the doctor at regular intervals. In rural and resource-poor communities, challenges with transport and gaps in communication between the patient and the treatment provider often result in patients "dropping off treatment" or becoming "lost to follow up". Once a patient is "lost to follow up" or off the treatment radar, it is often very hard to track them down and reintroduce them onto treatment.

txtAlert is a server-based system that works in conjunction with a hospital/clinic's medical record system (MRS) to remind patients of their upcoming appointments.

ABOUT TXTALERT

txtAlert was first piloted in 2007 in partnership with Right To Care, one of the biggest ARV (antiretroviral) treatment providers in South Africa. Right to Care was struggling with large numbers of patients who miss their appointments, who simply drop off treatment, or become "lost to follow up". They wanted a mechanism which would strengthen their patient tracking



department by reminding patients of their visits while also allowing them to easily and cost-effectively follow up on a patient who has missed an appointment. The aim was to allow for appointment reminders and to create a facility where patients could contact the clinic to reschedule or confirm an appointment – at no cost to the patient.

txtAlert is a server-based system that works in conjunction with a hospital/clinic's medical record system (MRS) to remind patients of their upcoming appointments. In clinics where an existing electronic MRS is in place, txtAlert will then integrate with that MRS. In clinics where no electronic MRS exists, Praekelt Foundation can develop a custom interface to input appointment data and manage patient bookings more effectively.

txtAlert now has four different iterations:

- **txtAlert ARV:** This version of txtAlert sends appointment reminders to users to reduce loss to follow up at clinics. Additionally, users can send a free "Please Call Me" SMS to a designated number to reschedule appointments.
- **txtAlert CD4:** This version of txtAlert delivers CD4 count results to patients who have been tested

for HIV but may not return to the clinic to collect their CD4 counts results, and therefore may not know that they qualify for ARV treatment.

- **txtAlert PMTCT:** This version of txtAlert sends reminder SMSs to pregnant women who are follow a PMTCT protocol, and can also include general maternal support messages for moms during their pregnancy. These SMSs are aimed at helping women to adhere to this treatment based on various criteria and results of tests entered into the Medical Records System.
- **txtAlert TB:** This is the latest iteration which Praekelt is currently developing, and will send reminders for patients on TB-treatment, to help them complete their treatment. It will also have a built-in self-reporting mechanism for patients to report their progress in TB treatment completion.

EVALUATION AND RESULTS

In the initial trial of txtAlert at the Theba Lethu clinic, significant results were achieved in reducing the number of missed appointments. Missed appointments have fallen from 30 percent to 4 percent, and loss to follow up has declined from 27 percent to 4 percent as well. There are currently over 18000 users of the system at three different clinics in Gauteng, South Africa.

The Wits Reproductive Health & HIV Institute (WRHI) is conducting a study on txtAlert Standard and CD4 users at two of these clinics as part of the Vodacom mHealth Initiative. Thus far, results show that those patients receiving SMSs in the CD4 program started ARV treatment earlier than those not receiving SMS results.

The PMTCT version of txtAlert currently has 6000 participants enrolled in a study at 33 clinics and two hospitals in KwaZulu-Natal. The results of this study will be published in September 2013.

LESSONS LEARNED

- The language and tone of the SMS reminders is critical – especially in cases where a user shares a

phone and has not disclosed their status.

- Lack of electronic medical records systems in clinics and hospitals presents a major challenge for roll-out of this service
- Buy-in from clinic staff is critical to the success of a txtAlert project

CONCLUSION

txtAlert has shown positive results in studies so far and has a number of variations that can be used for different disease – and reminder protocols. Plans for expansion of the project include integration into additional Medical Record Systems, including OpenMRS .

GEOGRAPHIC COVERAGE

Gauteng and KwaZulu-Natal Provinces, South Africa

IMPLEMENTATION PARTNERS

Praekelt Foundation developed the core technology; Partners: Virtual Purple, Therapy Edge, Provincial Department of Health, KwaZulu-Natal, Right to Care, Wits Reproductive Health & HIV Institute (WRHI), UNICEF South Africa

FUNDER

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