

Factors affecting treatment adherence in HIV treatment – Simple ways to improve Adherence!

When we talk about treatment adherence in HIV, the first question that requires an answer is - why is treatment adherence very important for a HIV patient?

What are the consequences for a HIV patient who does not adhere to treatment Regimen?

Treatment Adherence - Very long time before acquiring AIDS → A better life

Treatment Non Adherence – CD4++ count < 200 cells per cubic millimeter → AIDS

Treatment adherence is taking prescribed dose of medication at prescribed time. As HIV progresses, it becomes very important for the patient to follow the treatment regimen prescribed. If the treatment regimen is not followed, the Human Immuno deficiency Virus (HIV) may become resistant to the therapy, causing it to stop working and will lead to Acquired Immuno Deficiency Syndrome (AIDS). Also Studies show that a patient's first regimen offers the best chance for long-term treatment success. HIV treatment needs patients/children to take three or more types of ARVs every day, lifelong. Adherence issues can put an enormous strain on the daily lives of the patients and especially in case of children living with HIV. Parents and caregivers, who are usually responsible for administering treatment don't have an easy life taking care of their near and dear ones.

The four common effectors of HIV treatment adherence are:

1. Medication regimen complexity,
 2. Interaction or doctor-patient relationship,
 3. Patient related factors and
 4. System of care
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1. **Medication regimen complexity:** HIV treatment regimens are very complicated and often require the patient to take several medications at varied doses with restrictions on food intake and activities. Pill burden is one the major reason for medication non adherence. Research also shows that less adherence can lead to various side effects apart from the prognosis of HIV to AIDS.
 2. **Interaction (or) Doctor-Patient relationship:** A supportive relationship between a Doctor and his/her Patient will help the patient overcome many barriers including the psychological barrier. Two way communications, prompt response from doctors, able to reach health care providers immediately, are some ways to strengthen patient-doctor relationship and will also enhance trust. Ability for doctor/health care provider to monitor patient's well being and adherence will enhance treatment results.
 3. **Patient related factors:** Patient related factors also play a major role in the efficacy of the medication and handling these factors well can help improve medication adherence. Some of these factors are:
 - Patient's knowledge about the disease
 - Understanding the importance of adhering to treatment schedules
 - Forgetfulness
 - Accepting unpleasantness of the medications
 - Confusion on dosages
 - And more...

Most of these issues can be addressed by caretaker/ doctor to improve quality of life and treatment effectiveness.

4. **System of Care:** Lack of clear instructions, poor implementation of educational messages are adherence determinant factors in system of care. Rational selection of medications, identification of treatment goals and regular consultation can improve adherence and effectiveness.

Socioeconomic factors and lack of support from society are also strong contributors in the treatment of HIV.

Among the many methods of improving treatment adherence in HIV patients, Mobile technology today can play a pivotal role in improving patient's compliance to a specific treatment regimen. Mobile Technology can be used as a multi functionality system which can remind patients to take medications, send site/ hospital visit reminders, a very effective mode of communication between doctors and patients. Additionally, patient can use mobile phones to fill assessments, wherein the health care providers can assess patient's adherence and reported outcomes in real time and modify their regimen accordingly.

Patient awareness and treatment can be taken to the next level by sending educational and motivational messages, patient can keep track of their own compliance.

PaDiSys, from NowPos M-Solutions, is a mobile based patient treatment adherence and patient reported outcome capturing solution, allowing physicians and doctors to closely monitor their patients for their compliance in the treatment regimen. PaDiSys with its variants could be customized for different treatment programs and implemented on smart and featured mobile phones, reaching out to patients from lower economic strata.

*The **PaDiSys mTA**, is a "Mobile Device Independent" treatment adherence management system that uses SMS technology running on robust PaDiSys platform to manage treatment adherence. The mTA solution allows the Clinical Investigators to send pre-set SMS (text messages) at defined events to individual subjects mobile phone devices to maintain their trial compliance.*

***PaDiSys mPRO**, on the other hand is an advanced configuration of the same platform that has the mTA features and additionally allows patients to capture schedules or episode based assessments on a real-time basis using smart mobile phones.*

About the Author:

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