

## ENHANCING LINKAGE TO HIV CARE FOR NEWLY DETECTED HIV-POSITIVE PERSONS IN UKRAINE (MARTAS)

**The study has been conducted by** the Ukrainian Institute on Public Health Policy, Kyiv;  
sub-grantee: NGO "For Future without AIDS", Odesa  
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**Donor:** Centers for Disease Control and Prevention (CDC, Atlanta)  
**Design:** mixed-methods implementation study



### STUDY OBJECTIVES

**Objective 1 (Modifying ARTAS)** - modify the ARTAS intervention protocol for using it with patients recently diagnosed with HIV in Ukraine based on the results of a formative study conducted in specialized healthcare facilities of the Dnipropetrovsk oblast.

**Objective 2 (Piloting MARTAS)** – explore feasibility, acceptability and quality of intervention through a pilot study conducted in three specialized healthcare facilities in the city of Mykolaiv for a group of up to 30 patients recently diagnosed with HIV.

**Objective 3 (Evaluating MARTAS)** – using the design of a randomized controlled study, evaluate the effectiveness of intervention at nine sites (specialized healthcare facilities) in three oblasts of Ukraine (Odesa, Mykolaiv and Dnipropetrovsk) by comparing the observed rates of engagement and retention in care of HIV positive participants from the intervention and control groups.

**Objective 4 (Studying the perception of MARTAS)** – study the perception of MARTAS by the recipients to determine the feasibility of its implementation and its future dissemination in the healthcare facilities of Ukraine.

**The first IRB approval received on** February 2, 2014

**The effective IRB approval received on** September 12, 2017

**External quality control (Objectives 3, 4):** QED Clinical Services Ltd. (<http://qed-clinical.com>)

### DESCRIPTION OF INTERVENTION

**Anti-Retroviral Treatment and Access to Services (ARTAS)** includes five individual-level sessions aimed at linking recently diagnosed persons with HIV to medical care soon after receiving their positive test result. **ARTAS** is based on the Strengths-based Case Management (SBCM) model, which is rooted in Social Cognitive Theory and Humanistic Psychology. This model encourages the client to identify and use personal strengths; create goals for himself/herself; and establish an effective, working relationship with the case manager. **ARTAS** belongs to the evidence-based interventions.

For more details please visit:  
<http://www.effectiveinterventions.org/en/HighImpactPrevention/PublicHealthStrategies/ARTAS.aspx>

### STUDY TEAM



**Field staff training**  
August 3-7, 2015, Odesa

Taking into account the characteristics of the HIV epidemic in Ukraine, insufficient linkage of PLWH to care and the need to use evidence-based approaches to the implementation of response activities, it was proposed to study the effectiveness of the **ARTAS-MARTAS modified intervention in Ukraine** (Table 1).

**Table 1. MARTAS intervention description**

Item	ARTAS	MARTAS
Target population	Adults who received positive HIV test result in the past 6-12 months.	Adult patients in specialized healthcare facilities who received positive HIV test result.
Potential implementers	Health Offices, AIDS system, Counseling and Testing sites, Ryan White Case Management Programs, drug treatment programs and NGOs.	Counseling and testing sites at specialized healthcare facilities.
Intervention sites	Starts at a testing site and then moves to the HIV site.	Starts at a specialized healthcare facility and then moves to the HIV site, as well as to community-based services (if needed).
Program structure	Up to five sessions within 90 days or until linkage to HIV care.	Six sessions (three face-to-face and three by the phone), text messages (reminders) within 90 days or until linkage to HIV services.
Program content	Individual counseling to encourage clients to seek HIV services, identification of barriers and strengths.	The content of ARTAS, as well as special attention to issues related to depression, stigma, fear of disclosure of HIV status, and treatment of infectious diseases / STIs / drug abuse.
Role of Case Manager / Linkage Coordinator	Depending on a clinic - a trained community member.	Nurse at a specialized healthcare facility.
Focus on HIV services sustainability	Possible communication with a Ryan White Program case manager to address long-term problems and ensure retention in care.	Communication with the AIDS Center doctor and a long-term case manager (if needed) to address long-term problems and remove barriers to retention in care.

## STUDY RESULTS

### Objective 1 – Modifying ARTAS

- ARTAS protocol was translated.
- In-depth interviews with patients who recently received positive HIV test result (n = 20), and focus groups with health workers (n = 14) were conducted.
- Based on the results of the formative study, the ARTAS intervention was modified and named MARTAS after modification (Table 1).

- The article based on qualitative study findings was published online in the *BMC Health Services Research*:

**Kiriazova T, Postnov O, Bingham T, Myers J, Flanigan T, Vitek C, Neduzhko O. Patient and provider perspectives inform an intervention to improve linkage to care for HIV patients in Ukraine. BMC Health Serv Res. 2018 Jan 30;18(1):58. doi: 10.1186/s12913-018-2885-4.**

## Objective 2 – Piloting MARTAS

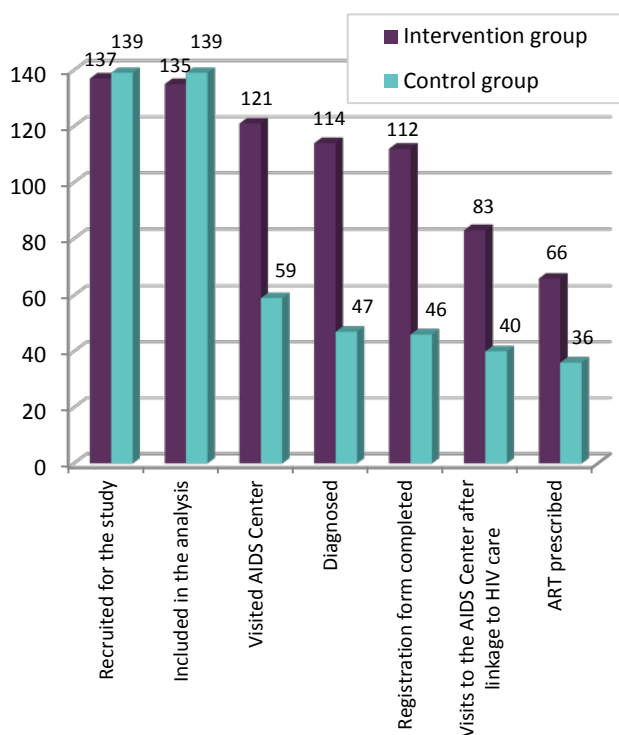
- MARTAS was piloted in patients who recently received positive HIV test results (n = 23) in three specialized healthcare facilities in the Mykolaiv oblast.
- 20 patients started receiving MARTAS intervention (they had at least one session with a Linkage Coordinator). 14 patients (64% of those recruited for the study and 70% of those who received the MARTAS intervention) have been enrolled in care at the AIDS Center and started receiving specialized services three months after being recruited for the study.
- The results of this stage of the study demonstrated the feasibility and acceptability of the MARTAS intervention in the context of Ukraine. As a result of piloting, relevant amendments were made in the Study Protocol.
- The article based on the study findings was submitted to the *Journal of the International Association of Providers of AIDS Care* for publication.

## Objective 3 – Evaluating MARTAS (preliminary results)

- In October 2015 – October 2017, MARTAS effectiveness was evaluated among patients who received positive HIV test result (n=274) in nine specialized healthcare facilities in Dnipropetrovsk, Mykolaiv and Odesa oblasts: Dnipropetrovsk Drug Treatment Clinic of the Dnipropetrovsk Oblast Council (DOC) and Oblast STI Clinic in the city of Dnipro, Kryvyi Rih Infectious Disease Hospital No. 1 of the DOC, Mykolaiv Oblast Drug Treatment Clinic of the Mykolaiv Oblast Council (MOC), Mykolaiv Oblast STI Clinic of the MOC, Mykolaiv Oblast Infectious Disease Hospital of the MOC, Odesa Oblast STI Clinic, City Clinical Infectious Disease Hospital in the city of Odesa, and Odesa oblast Medical Center of Mental Health, with support from the Dnipropetrovsk Oblast AIDS Center, Kryvyi Rih AIDS Center, Mykolaiv Oblast Center for Palliative Care and Integrated Services of the MOC, and Odesa Oblast AIDS Center.

- The analysis included 135 members of the intervention group (men - 63.0%, average age - 37.2 y.o., drug use over the past month - 15.6%) and 139 members of the control group (men - 64.0%, average age - 37.6 y.o., drug use over the past month - 23.0%). There was no statistically significant difference observed between the groups (gender p = 0.855, age p = 0.679, drug use p = 0.118).
- Of 135 members of the intervention group: 133 (95.8%) received at least one MARTAS session, including 88 (66.2%) those who received at least one session on the day of their recruitment for the study; the average number of sessions was 3.2 (SD 0.9), including face-to-face - 2.9 (SD 0.8) and by the phone - 0.3 (SD 0.5); average duration of face-to-face sessions - 52.4 (SD 33.3) minutes; average duration of sessions by the phone - 21.5 (SD 9.5) minutes; average number of sessions during which the client received strengths assessment - 1.4 (SD 0.6); average number of referrals to services (other than HIV services) – 0.76 (SD 0,7).
- Retention in the study: 124 (91.9%) members of the intervention group and 124 (89.2%) members of the control group completed 3-month follow-up assessment; 121 (89.6%) members of the intervention group and 120 (86.3%) members of the control group completed 6-month follow-up assessment.
- **A statistically significant increase in the proportion of the members of the intervention group (vs the control group members) who, according to medical records, visited AIDS Center within three months after the date of their recruitment for the study (89.6% vs. 42.4%, Crude OR = 11.72 (6.13-22.39) Crude RR = 2.11 (1.73-2.58) (see Figure 1).**
- **A statistically significant increase in the proportion of members of the intervention group (vs the control group members) who, according to medical records and self-reports, were linked to HIV care within three months after the date of their recruitment for the study (84.4% versus 33.8%, Adjusted OR = 13.05 (6.43-26.46) Adjusted RR 2.82 (1.85-4.29).**

Fig.1. Key study findings (Objective 3)



- No statistically significant increase in the proportion of members of the intervention group vs the control group members who were linked to HIV care and visited AIDS Center at least once during six months after their linkage to HIV care (76.1% vs. 95.2%, Adjusted OR = 0.10 (0.01-0.84), Adjusted RR = 0.78 (0.48-1.27).
- No statistically significant increase in the proportion of all members of the intervention group (vs the control group members) who, according to medical records, visited AIDS Center at least once during six months after their linkage to HIV care (Crude OR = 3.95 (2.38-6.55), Crude RR = 2.14 (1.59-2.87).
- The Log Rank test showed a statistically significant difference between the groups in terms of linkage to HIV care ( $p < 0.001$ ). The intervention was particularly important to drug users: among members of the intervention group, the average time between recruitment for the study and

linkage to care was 58 days for drug users and 52 days for those without a drug use history; similar indicators among the members of the control group were 218 and 148 days, respectively.

#### Objective 4 - Studying the perception of MARTAS

- Semi-structured interviews were conducted for 32 clients of the MARTAS intervention at eight study sites after six months. All clients reported that motivation by the Linkage Coordinator was the main reason for them to seek medical HIV services. As for the intervention, the participants were most encouraged by psychological support provided by the Linkage Coordinator, practical assistance with the registration at the AIDS Center (planning, coordination and support), and the opportunity to receive reliable HIV-related information from the Linkage Coordinator. While recalling the content of MARTAS sessions, many clients emphasized that the assessment of strengths helped them to increase their self-esteem and motivation to start HIV treatment. For four MARTAS clients who did not seek HIV services, the only barrier was a satisfactory health status.

#### Conclusions and recommendations

- MARTAS intervention has proven its effectiveness and acceptability for timely linkage of people tested positive for HIV to care in Ukraine.
- ART initiation and retention in care require long-term case management interventions and actual availability of ART.
- Piloting MARTAS is relevant for ensuring timely linkage to care on a routine basis in more healthcare facilities, as well as piloting MARTAS combined with long-term case management interventions.

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