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Ministry of Health

Guidance to enhance ART adherence, viral load monitoring, and regimen optimization to improve HIV viral suppression among PLHIV on ART

August 2017

NATIONAL CENTER FOR HIV/AIDS, DERMATOLOGY AND STDs

Contents

Acknowledgements

The guidance was prepared based on the National HIV clinical management guidelines for Adults and Adolescents, officially approved by the ministry of health, dated on 09 August, 2016. This document will provide details guidance and specific tools to Pre-ART/ART Team to implement viral load testing and use these VL result, and enhanced adherence counseling to improve HIV viral load suppression among PLHIVs on ART.

In this accession, The National Center for HIV/AIDS, Dermatology and STD (NCHADS), would like to express the deepest thanks to all NCHADS officers and HIV partners who actively participated in and contributed to the development of guidance note on enhance ART adherence, viral load monitoring, and regimen optimization to improve HIV viral suppression among PLHIV on ART. In particular, I am grateful to Dr. Samreth Sovananrith, Dr. Ngauv Bora (AIDS Care Unit), Dr. Laurent Ferradini, Dr. Deng Sarongkea (WHO), Dr. Ahmed Saadani, Dr. Chan Sodara (US-CDC), Ms. Caroline Barrett (CHAI), Dr. Chel Sarim (FHI 360) and Dr. Denisa Augustin Mrs. Say Leakhena for their effort of this successful development.

Phnom Penh, 09 /Aug./2017

Director of NCHADS

Dr. Ly Penh Sun

1. Background

Routine HIV viral load testing for patients on ART is recommended by WHO as the best way to monitor a patient's adherence and response to treatment, and was recently included in Cambodia's National HIV Clinical Management Guidelines. Among UNAIDS 90-90-90 goals, the "third 90" focuses on ensuring that 90% of patients on ART achieve HIV viral suppression.[1]

Cambodia is scaling up viral load (VL) testing for all ART patients. As more patients receive VL testing, clinicians will need to better understand what to do when a patient has a detectable VL test result. A patient with detectable VL may have already developed true resistance to his/her medication, or he/she may simply be not fully adherent to the medication.

A systematic review by WHO has shown that up to 70% of patients with a VL >1,000 copies/mL can achieve re-suppression after proper adherence support.[2] This demonstrates the importance of routine viral load monitoring as a tool to identify patients who need enhanced adherence support. Given the challenges and costs of 2L and 3L therapies, it is especially important to understand the cause of virological failure[3], to provide high-quality, tailored adherence support and avoid premature switching to 2L or 3L "salvage" therapy.

2. Objectives

This guidance note provides recommendations to programmatic and clinical staff to improve viral suppression and patient outcomes, and thus accelerate progress toward Cambodia's "third 90" goal through:

- Implementing routine VL to monitor patient adherence
- Providing high-quality enhanced adherence counseling for those with unsuppressed VL
- Optimizing regimen and switch to 2L and 3L when necessary

The audience for this guidance note is:

- PHD and OD Programmatic Staff
- ART Site Clinicians, Nurses
- ART Site Counsellors

[1] Viral suppression refers to a viral load below the detection level using viral assays. *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV: Recommendations for a Public Health Approach.* World Health Organization. Second Edition. 2016. Page xiii. <http://apps.who.int/iris/bitstream/10665/208825/1/9789241549684_eng.pdf?ua=1>

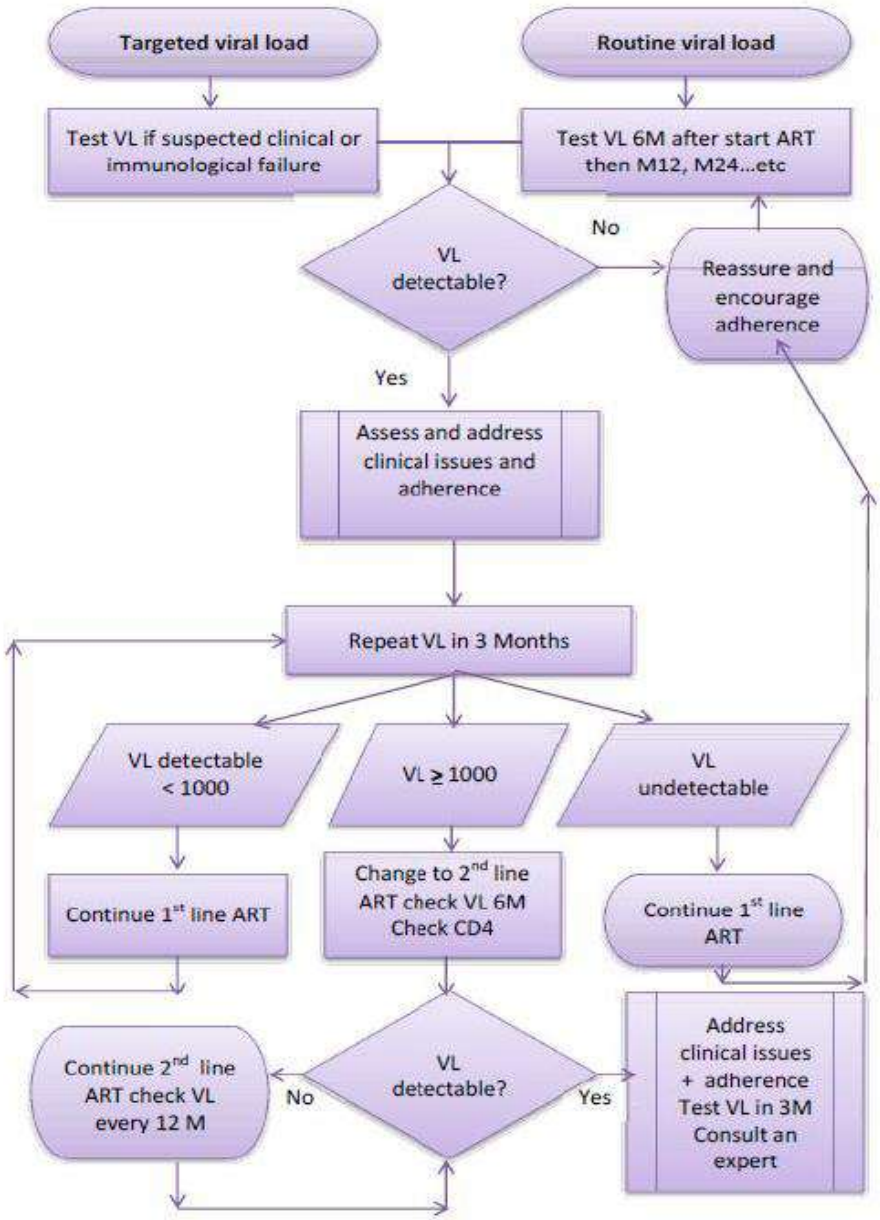
[2] Bonner K, Mezochow A, Roberts T, Ford N, Cohn J. Viral load monitoring as a tool to reinforce adherence: a systematic review. J Acquir Immune Defic Syndr. 2013;64(1):74–8.

[3] Viral failure is defined as a persistently detectable viral load exceeding 1000 copies/ml (that is, two consecutive viral load measurements within a 3-month interval, with adherence support between measurements) after at least 6 months of starting a new ART regimen. *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV: Recommendations for a Public Health Approach.* World Health Organization. Second Edition. 2016. Page xiii. <http://apps.who.int/iris/bitstream/10665/208825/1/9789241549684_eng.pdf?ua=1>

3. When to conduct Routine Viral Load Testing

Routine viral load monitoring should be conducted 6 months after initiating ART, 12 months after initiating ART, and every 12 months after that if the VL is undetectable.

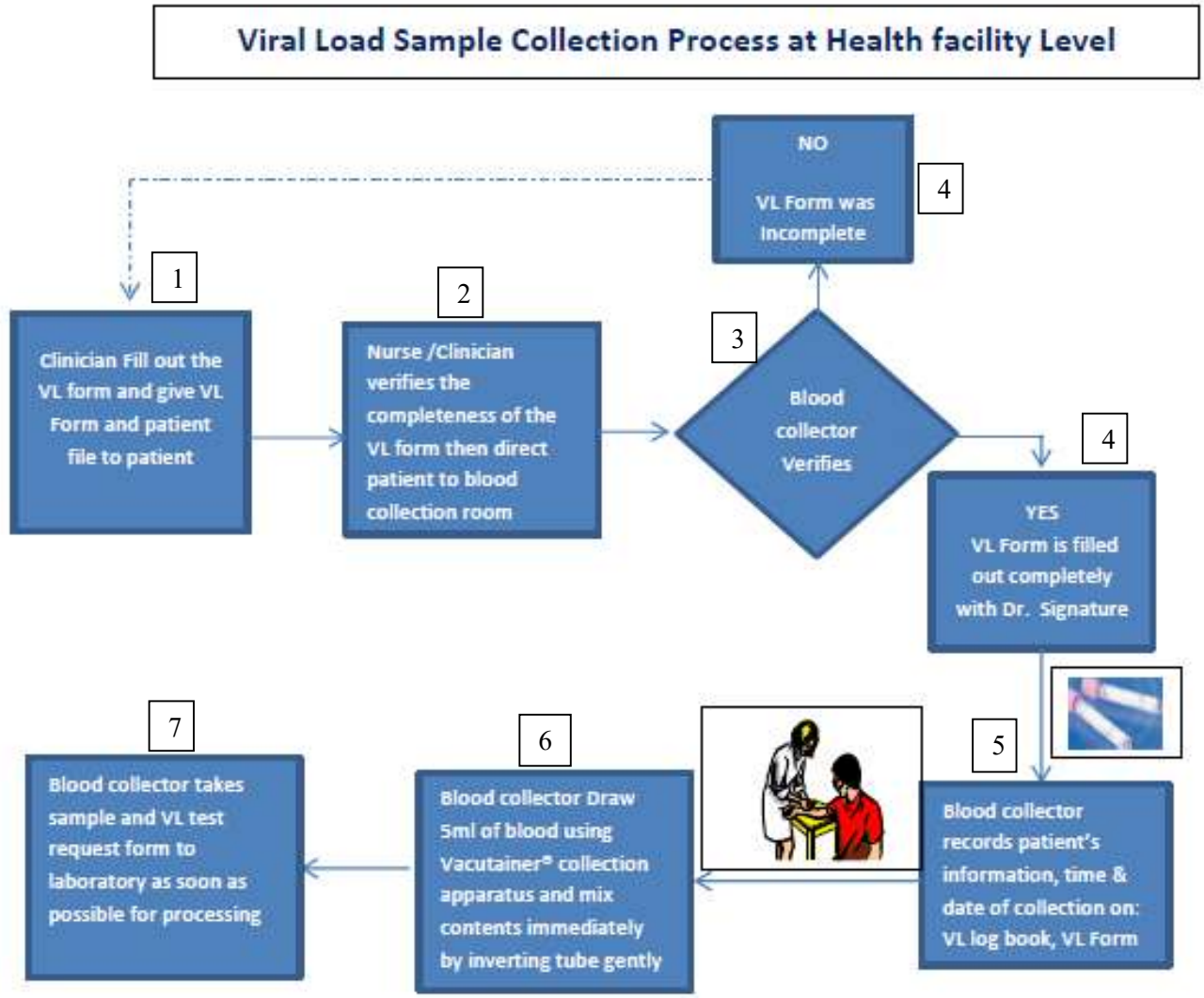
3.1 Cambodia Viral Load Algorithm[4]



[4] National HIV Clinical Management Guidelines, NCHADS 2016, Figure 11-2, p68. Note: a detectable VL is defined as any result > 40 copies/mL.

4. How to conduct Routine Viral Load Testing?[5]

Implementation of Routine Viral Load Testing requires collaboration between clinical, counseling, and laboratory staff at the site level.



[5] Refer to "Standard Operating Procedure for Implementing HIV-1 Viral Load Tests in Cambodia" (February 2017) for full details.

5. What to do when a patient has a detectable (≥ 40 copies/mL) VL result

A viral load may be detectable due to poor adherence, ART drug resistance, or a "blip" - sometimes the VL is detectable because of occasional viral replication, and will return undetectable without the need to change ART regimen.

A detectable VL is a medical emergency. When a patient has a detectable VL, you must:

- Provide 3 months of tailored Enhanced Adherence Counseling (one appointment each month)
- Perform a second VL test after this 3-month period of Enhanced Adherence Counseling

5.1 Conduct Enhanced Adherence Counseling

Definition: Enhanced Adherence Counseling is a series of 3 counseling appointments – 1 appointment per month for 3 months. Enhanced Adherence Counseling:

- Can be conducted by site counselor, nurse, or doctor
- Should begin as soon as possible after a detectable VL test result
- Sessions should last at least 30 minutes each
- Aims to both assess adherence to ART, and improve adherence to ART
- Should be tailored to address the patient's specific challenges with adherence

Key Components: Enhanced Adherence Counseling should:

- Assess adherence
- Explore barriers to adherence
- Find solutions to improve adherence
- Monitor adherence progress from each EAC session. **The Enhanced Adherence Counseling Form (part of Annex 1) must be completed at each EAC session and place in the patient's file.**

5.2 Referrals and Resources

During Enhanced Adherence Counseling sessions, you may notice barriers that require referral to other interventions or services. Your site's coordinator for Enhanced-Integrated Active Case Management (B-IACM) will be help the patient receive additional support and services. You should **refer these cases to the B-IACM coordinator** at your site.

5.3 Specific adherence support interventions for children

Successfully treating a child requires the commitment and involvement of responsible caregivers. Such caregivers may also be living with HIV, and poor quality of care for adult family member(s) may result in poor care for the child. Other challenges include limited choice of pediatric formulations, poor taste of syrup, difficult swallowing tablets, and frequent dosing requirements.[6]

Improving poor adherence in a child could require:

- Visiting the child's home to understand the full social and economic context
- Building a relationship with a well, capable adult family member
- Optimizing the child's formulation to reduce pill burden and poor taste[7]

[6] 2015 WHO Guidelines.

[7] Two new pediatric formulations are ABC/3TC 120mg/60 mg dosage, and LPV/r 40/10mg oral pellets.

5.4 Specific adherence support interventions for adolescents

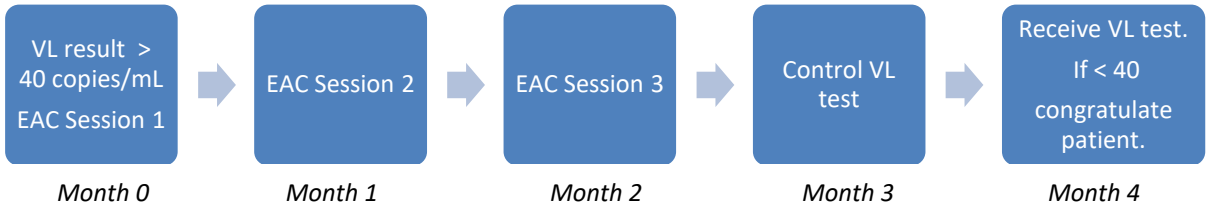
It is estimated that one-third of adolescent ART patients worldwide are not fully adherent to their medication.[8] Adolescent patients experience a number of unique challenges to adherence, including fears around stigma and confidentiality when attending clinic, lack of a daily routine, busy social life, and lack of pocket money to pay for transport to clinic, and/or reluctance to switch to new providers at adult clinic.

Improving poor adherence in an adolescent could require:

- Changing appointment times to be more convenient with school schedule
- Relationship-building between a single provider and the patient to establish trusting and candid interactions, especially for adolescents who have recently transitioned to adult clinic
- Close monitoring of patient's engagement in their care and rapid follow-up if patient starts to disengage
- Technology-based methods to remind the patient to take their medication (such as phone alarms)

5.5 Repeat VL test ("control" VL test)

After 3-months of Enhanced Adherence Counseling, you must perform a second VL test – the "control VL" test. If the viral load is undetectable, congratulate the patient and celebrate this accomplishment. Reinforce good adherence.



6. What to do when a *patient on 1L regimen* has a confirmed virological failure (VL ≥1,000 copies/mL after 3-month Enhanced Adherence Counseling) [9]

If the VL is still ≥ 1,000 copies/mL:

- The regimen should be changed to 2L after all adherence issues have been addressed. If the VL decreases after adherence counseling, but remains ≥1000 copies / mL, still switch to 2L.

If VL is between 40 and 1,000 copies/mL:

- Continue 1L and repeat VL in 3 months. If this test is again between 40 and 1,000 copies/mL, consider switch to 2L.

SUMMARY: WHEN TO CHANGE TO 2ND LINE

- **Two consecutive results of VL ≥ 1000 copies / mL, AND**
- **Patient has received Enhanced Adherence Counseling (1 time per month in 3 consecutive months) between these two tests**

[8] 2015 WHO Guidelines.
[9] National HIV clinical management guidelines for Adults and Adolescents, MoH Aug. 2016

6.1 OI Management

Check patient's CD4 count. If CD4 < 350 cells, start patient on cotrimoxazole. Refer to HIV Clinical Management Guidelines Section 5.2 "Criteria for cotrimoxazole prophylaxis."

6.2 Choosing a 2L regimen

Select 2nd line according to the Cambodia HIV Clinical Management Guidelines for Adults and Adolescents:

Failed 1st line regimen	Preferred second line
TDF + 3TC + NNRTI	AZT + 3TC + ATV/r (if HBsAg negative)
	TDF + 3TC + AZT + ATV/r (if HBsAg positive)
AZT (or d4T) + 3TC + NNRTI	TDF + 3TC + ATV/r
If on Rifampicin (TB treatment) ➢ Change back to ATV/r after TB treatment	2nd line NRTI as above + combine with *either* · Double dose LPV/r 12 hourly *OR* · LPV/r + 3x100mg ritonavir 12 hourly Monitor closely for toxicity
If failed 1st line included a PI	Consult an expert.

6.3 Monitor patient closely during transition to 2L

BAC: Conduct BAC **monthly** during **first 3 months of 2L treatment**, to detect any adherence issues immediately.

VL: Recheck VL at **6 months, 12 months after 2nd line regimen and then every year**.

7. What to do when a *patient on 2L regimen* has a confirmed virological failure (≥1,000 copies/mL after 3-month Enhanced Adherence Counseling)

Virological failure to 2L regimen may be due to ART resistance. Such patients may be eligible for third-line "salvage therapy." Suspected cases of 2L resistance should be referred to NCHADS for discussion with the 3L Technical Working Group, and to the site's B-IACM coordinator.

Refer suspected cases of 2L resistance to NCHADS if:

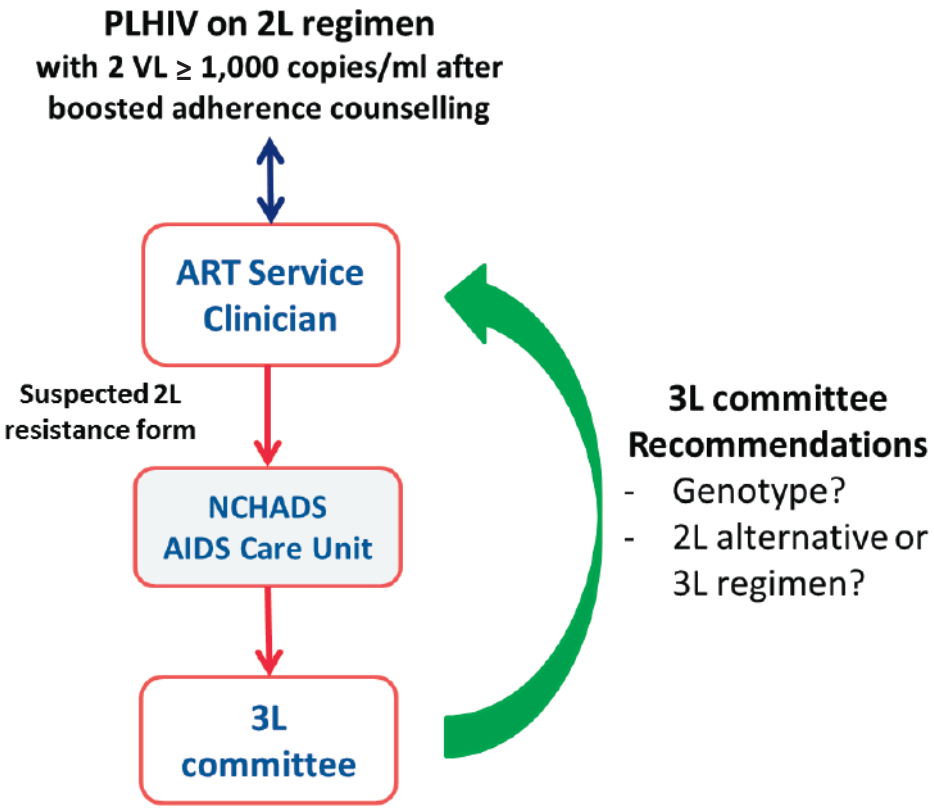
- **Patient has been on PI-based regimen for at least 12 months AND**
- **Patient has had two consecutive VL results ≥1000 copies/mL, separated by Enhanced Adherence Counseling (1 time per month in 3 consecutive months, using the process above)**

These patients are experiencing a medical emergency. The clinician must:

1. Contact AIDS Care Unit
   - E-mail address: clinicalmentoring@nchads.org
   - Dr Ky Sovathana, AIDS Care Unit: 077 811 189 / kysovathana@nchads.org
   - Dr.Ngauv Bora, AIDS Care Unit: bora@nchads.org
2. Fully complete the 'Suspected 2L Resistance Form' (Annex 2)

The patient's 'Suspected 2L Resistance Form' will be reviewed by the 3L TWG composed of partners, experts and NCHADS. The Cambodia 3L TWG will meet regularly to review all 2L suspected failure referrals and provide appropriate recommendations. NCHADS will feed back to the clinicians on site about the recommendations from the 3L TWG for each patient, especially about the need for an HIV genotype to further analyze HIV-1 gene mutations.

Process following the suspicion of 2L virological failure



ANNEX 1: BOOSTED ADHERENCE COUNSELING GUIDE[10]

Medical criteria for patient to see counselor:
– Suspicion of clinical and/or immunological failure
– Patients with detectable viral load (≥ 40 copies / mL)

Objectives of Boosted Adherence Counselling:
– To explain treatment failure
– To identify problems that influence adherence and find solutions

Counselling procedures:
– Sessions must be done 1:1 (patient and counselor)
– Patient should be mentally able to undergo the counselling session
– If the patient has a "treatment buddy," he/she can attend the sessions to support the patient
– Time allocated for each session: 30 minutes
– Monthly visits for 3 months

Tools for the counselor:
– ARV flipchart
– VL visual aid
– Key messages on prevention of treatment failure

Session when drawing initial routine viral load

(can be done as individual or group)

Objective	Questions
1. To welcome the patient and to give a general introduction to the discussion	"Good morning, I'm … and you…?" "Today I am going to check your viral load, which we regularly do for everyone to continuously monitor your condition."
2. To explain basic concepts	"Do you know what viral load is and why it is important?" "If your viral load is **undetectable**, it means the medicines are working well and you will continue your ARV treatment as before." "If your viral load is **detectable**, you will be referred to the health care team for a thorough examination and for further counselling support."
3. To assess recent adherence	Check adherence since last visit in the usual fashion. Check adherence with treatment buddy, if available

[10] Adapted from MSF Patient Education and Counselling Handbook for HIV/TB infected adult patients, March 2012 and EOC Tool kit, US-CDC

ENHANCED ADHERENCE COUNSELING FORM: SESSION 1

TODAY'S DATE:_____ PATIENT ARV CODE:_____

Introduction

Objective	Counselor Script
1. **To welcome the patient and to give a general introduction to the discussion**	"Good morning, I'm … and you…?" "Today we are going to talk about the result of your viral load test and the fact that the clinician thinks that your treatment might no longer be working against HIV."
2. **To discuss the concepts related to treatment failure**	"Can you explain what viral load, treatment failure, and resistance could mean?" • Viral load: a measure of the HIV virus's presence in your blood. A viral load result of more than 1,000 means that the virus is getting stronger in your body. It is very serious. • Treatment failure: We say that a patient on ART is experiencing treatment failure when they have two consecutive viral load results of more than 1,000. A patient could experience treatment failure because he is not taking his medicine exactly as prescribed. Or, he could experience treatment failure because ARVs have stopped working. (Remember: his ARVs can also have stopped working even if he does not have symptoms.) • Resistance: When a patient's virus has changed and the ARVs no longer work against the virus, we say that patient has developed resistance. "When we suspect that ARVs no longer work for a patient, we plan monthly visits for 3 months, to explore if the patient has any problems taking their medicine and to look for solutions. It is very important that we can discuss these issues openly." "A second viral load test will be done in 3 months to see if things improved or if we need to change treatment." "If we can resolve any problems with your adherence, there is a good chance that your viral load will be undetectable at the next visit and so we will not need to change your treatment."
3. **To assess previous problems of adherence and recent adherence**	- Check whether the patient had previous problems of adherence and/or missed appointments. - Check adherence since last visit using the Morisky questions below: If the patient answers yes to at least one question, adherence is not good and the issue needs to be explored. - Check adherence with treatment buddy, if available

Adherence Assessment

1. Self-reporting adherence

INSTRUCTIONS: Ask the patient: "Since last visit…."	Response (Circle)	
1. How often do you forget to take your ARVs?	**Yes**	**No**
2. When you feel better, do you sometimes stop taking your ARVs?	**Yes**	**No**
3. Sometimes if you feel worse when you take your ARVs, do you stop taking it?	**Yes**	**No**

RESULT: (Circle one)		
	No to all questions	**2**
	Yes to one question	**1**
	Yes to more than one question	**0**

2. Pill count: Using one row for each pill / product, fill in this chart according to the pills the patient has brought.

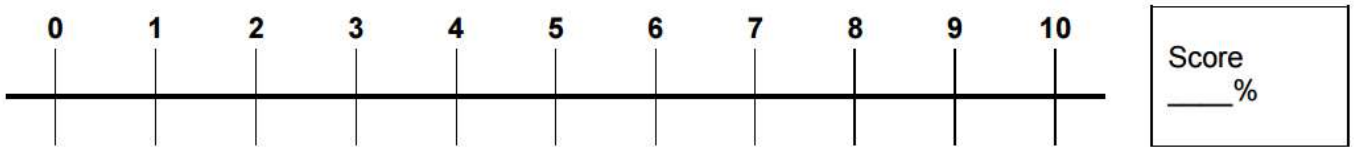
INSTRUCTIONS: Complete using the pill bottles the patient has brought to the appointment. Use one row for each product.

	A	B	C	D	E	F
ARV product	**Required pills** (days since last visit x pills/day)	**Number of pills given at last Appt**	**Theoritical left** (B-A)	**Actual left**	**Absolute missed or over pills** (D-C)	**Adherence rate** [(1 – (E/A)] x 100%

Results	**Score (Circle one)**
95-105%	2
Doubt (medication not brought along)	1
<95% or >105%	0

3. Visual Scale

INSTRUCTIONS: Show the patient the image below. Tell the patient to point to 10 if s/he has taken every dose of medicine in the past 4 days. Tell the patient to point to 0 if s/he has taken no dose of medicine in the past 4 days. Give the patient time to reflect. Then ask him to place her/his finger on the scale. Record the score as follows: if s/he places her/his finger on 4, her/his score would be 40%



Results	Score (Circle one)
< 100%	0
100%	1

4. **Global adherence score (add results from sections 1, 2, and 3):**

5: Good adherence 4: Moderate adherence 0-3: Poor adherence

Explore barriers to adherence

To explore barriers to adherence, a patient-centered approach is needed. Assure patient that adherence checking is not to blame patient but to help improve the treatment outcome. The list of questions below should be **adapted to each individua**l*:* "What do you think could be the reason for this detectable viral load?" or "Together we will explore any challenges to treatment adherence that you may be facing, and that could explain a high viral load."

Understanding HIV and ART

INSTRUCTIONS: Ask the patient each questions.	Record patient response and counsel patient with correct information.
1. Can you give me the name of the ART drugs you are taking?	
2. Can you tell me how you take your ART drugs? How many tablets? At what time of day?	
3. Can you tell me your last CD4 count result?	
4. Where do you store your ART drugs?	

INSTRUCTIONS: Read each statement to client, and ask whether the statement is True or False. Circle her/his answer.	**Correct Response**	**Reponses by Client**
One goal of ART therapy is to increase CD4 cells	*TRUE*	**False** **True**
If you stop taking ARTs you will become sick again one day	*TRUE*	**False** **True**
ART drugs have to be taken for life	*TRUE*	**False** **True**
To be effective ARTs should be taken every day	*TRUE*	**False** **True**
Your virus can become resistant to ART if you miss doses or timing	*TRUE*	**False** **True**
When CD4 count becomes high, you can stop ART	*FALSE*	**False** **True**
You can stop taking ART when you feel better	*FALSE*	**False** **True**

If you vomit within 30 minutes of taking your drug, you should take the drug again	*TRUE*	**False** **True**
When travelling, you can stop taking ART	*FALSE*	**False** **True**
If you have headache or nausea you should stop taking ART	*FALSE*	**False** **True**
Results *(If more than 3 statements are wrong, understanding of HIV and ART may be a barrier to adherence. Counsel patient with correct information.)*	**Correct Response** *Total True: _6_* *False: _4_*	
	Reponses by Client **Correct** _____ **Wrong** _____	

Behavioral barriers		
Treatment fatigue	Patient response	
Do you get frustrated with having to take treatment every day?	**Yes**	**No**
Do you remember to take your treatment some days but then feel too tired to take it?	**Yes**	**No**
Do you feel like taking your treatment interrupts your daily life?	**Yes**	**No**
RESULTS: If any Yes answers, treatment fatigue may be a barrier. Motivate the patient, notify clinician in case regimen can be simplified.	*Total Yes: __*	*No: __*
Treatment discomfort		
Does taking your medicine cause you any discomfort?	**Yes**	**No**
Do you find the pills hard to swallow or don't like their taste?	**Yes**	**No**
Are you experiencing any dizziness, stomach problems, fatigue, unusual dreams, or other side effects? If so, do they deter you from taking your medicine?	**Yes**	**No**
RESULTS: If any Yes answers, treatment discomfort may be a barrier. Motivate the patient, notify clinician in case regimen can be changed to address side effects.	*Total Yes: __*	*No: __*
Alcohol and drug use		
I am going to ask you a few questions now about your alcohol or drug use habits. Remember that this discussion is confidential.		
Have you ever felt you should CUT DOWN on your drinking/drug use?	**Yes**	**No**
Have people ANNOYED you by criticizing your drinking/drug use?	**Yes**	**No**
Have you ever felt bad or GUILTY about your drinking/drug use?	**Yes**	**No**
Have you ever had a drink/used drugs first thing in the morning to steady your nerves or to get rid of a hangover?	**Yes**	**No**
RESULTS: If 2 or more questions, s/he likely has a drinking problem that should be explored further. Alert site B-IACM coordinator.	*Total Yes: __*	*No: __*

Emotional barriers		
Depression		
Have you lost interest or pleasure in doing things you used to enjoy?	**Yes**	**No**
Do you feel down, depressed, or hopeless?	**Yes**	**No**
Do you feel bad about yourself, or that you have let yourself or your family down?	**Yes**	**No**
RESULTS: If any Yes answers, depression may be a barrier and patient should be referred to mental health counseling services. Alert site B-IACM coordinator	*Total Yes: __*	*No: __*
Socio-economic barriers		
Disclosure		
Have you disclosed your HIV status to anyone within your home?	**Yes**	**No**
IF YES: Are people within your home supportive of your treatment?	**Yes**	**No**
Have you disclosed your HIV status to your partner?	**Yes**	**No**
IF YES: Are they supportive of your treatment?	**Yes**	**No**
IF NO: Ask do you feel like not disclosing to your partner effects your adherence?	**Yes**	**No**
If not yet disclosed, review the benefits and risks of disclosure. Let the client decide if disclosure is right for them		
Sexual and gender based violence		
Do you feel safe at home?	**Yes**	**No**
If no, alert site B-IACM coordinator.		
Experience of Stigma		
Have you ever experienced stigma based on your HIV status?	**Yes**	**No**
Have you ever not been included or invited to something because of your status?	**Yes**	**No**
Has anyone ever made rude comments to you because of your status?	**Yes**	**No**
Have you ever been denied employment because of your status?	**Yes**	**No**
Do you face any challenges in coming for your drug refills at the clinic?	**Yes**	**No**
If yes to any, patient could be facing a significant barrier to adherence. Alert site B-IACM coordinator	*Total Yes: __*	*No: __*

Support system		
Is there anybody else in your environment taking ARTs?	**Yes**	**No**
If there is someone else taking ART, do you support each other?	**Yes**	**No**
Are people around you (partner, family, community) supporting you?	**Yes**	**No**
Do you belong to or know a support group in your area you could join?	**Yes**	**No**
If No to more than one question, lack of support could be a barrier to adherence. Explore linking patient to a treatment buddy, peer counselor, or other support system.	*Total Yes: __*	*No: __*
Summarize the main identified barriers to ART adherence		
Incorrect knowledge or misconceptions about treatment	**Yes**	**No**
Treatment fatigue	**Yes**	**No**
Treatment discomfort or side effects	**Yes**	**No**
Drugs or alcohol use	**Yes**	**No**
Depression	**Yes**	**No**
Disclosure	**Yes**	**No**
Experiencing Sexual or Gender Based Violence	**Yes**	**No**
Stigma and discrimination	**Yes**	**No**
Poor supportive environment	**Yes**	**No**

Identify solutions to solve problems and improve adherence	
"Can we look together at ways to improve/sustain adherence?" Possible strategies depending on the problems identified can be disclosure, referral to support group, finding treatment buddy, emotional support, helping patient to make pill-taking part of his routine, use of pill box, use of reminder tool, referral to NGO.	Record solutions / plans here.
Conclusion of the session	
Summarize, set date for next session, and inform patient that s/he may see someone new at the next session	

ENHANCED ADHERENCE COUNSELING FORM: SESSION 2 AND 3

INSTRUCTIONS: Before beginning this session, review the barriers to adherence identified in Session 1, and the adherence improvement plan developed with the client. The purpose of this form is to assess patient's adherence since last visit, and follow up on the specific adherence barriers identified in Session 1.

TODAY'S DATE:_____ PATIENT ARV CODE _____

(Circle One) **EAC Session 2** **EAC Session 3**

Introduction

Objective	Counselor Script
1. **To welcome the patient and to give a general introduction to the discussion**	"Good morning, I'm … and you…?" "Today we are going to follow up on any challenges you might have taking your medication. We want to see if it's possible to have your next VL test result be undetectable."
2. **To reinforce the concepts related to treatment failure**	"Can you tell me what you remember from your last session on what viral load testing, treatment failure, and resistance mean?"

Adherence Assessment

1. Self-reporting adherence

INSTRUCTIONS: Ask the patient: "Since last visit…."	**Response (Circle)**		
1. How often do you forget to take your ARVs?		**Yes**	**No**
2. When you feel better, do you sometimes stop taking your ARVs?		**Yes**	**No**
3. Sometimes if you feel worse when you take your ARVs, do you stop taking		**Yes**	**No**

RESULT: (Circle one)		
	No to all questions	**2**
	Yes to one question	**1**
	Yes to more than one question	**0**

2. Pill count: Using one row for each pill / product, fill in this chart according to the pills the patient has brought.

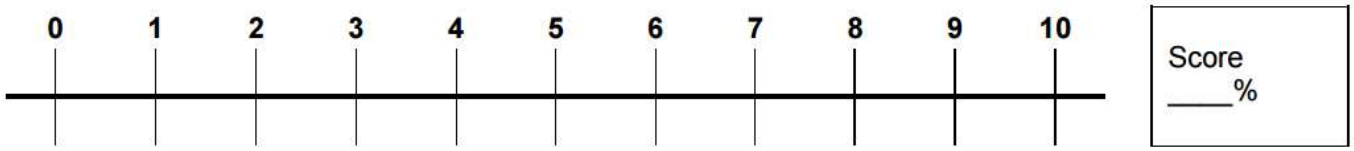
INSTRUCTIONS: Complete using the pill bottles the patient has brought to the appointment. Use one row for each product.

ARV product	Required pills (days since last visit x pills/day)	Number of pills given at last Appt	Theoritical left (B-A)	Actual left	Absolute missed or over pills (D-C)	Adherence rate [(1 – (E/A)] x 100%

Results	Score (Circle one)
95-105%	**2**
Doubt (medication not brought along)	**1**
<95% or >105%	**0**

3. Visual Scale

INSTRUCTIONS: Show the patient the image below. Tell the patient to point to 10 if s/he has taken every dose of medicine in the past 4 days. Tell the patient to point to 0 if s/he has taken no dose of medicine in the past 4 days. Give the patient time to reflect. Then ask him to place her/his finger on the scale. Record the score as follows: if s/he places her/his finger on 4, her/his score would be 40%



Results	**Score (Circle one)**
< 100%	**0**
100%	**1**

4. Global adherence score (add results from sections 1, 2, and 3):

5: Good adherence 4: Moderate adherence 0-3: Poor adherence

Follow up on barriers to adherence and problem solving strategies
INSTRUCTIONS: Have a discussion with the client about each of the barriers identified during Session 1. Remember: problem solve, motivate, and come up with strategies together. Use this space to record notes from your discussion.
Conclusion of the session
INSTRUCTIONS: Summarize the session, set a date for next session in 1 month, and inform patient that s/he may see a new counselor at next session.

SUSPECTED 2L RESISTANCE FORM

Date: _____	Data collector: _____
Patient ARV number: _____	Patient Clinic ID: _____
Date of birth: _____	Sex: _____
Name of clinician: _____	Tel. _____
Clinic name: _____	Clinic code: _____

Patient history:
Instruction: Fill-in table below

Date	ARV regimen	CD4 result	Viral load result	Adherence	Weigh	OI	Remark

ឧបត្ថម្ភចោះពុម្ពដោយ

អង្គការ UNAIDS