REPUBLIC OF BURUNDI

MINISTRY OF PUBLIC HEALTH AND THE FIGHT AGAINST AIDS

NATIONAL HIV / AIDS AND STI CONTROL PROGRAM

NATIONAL GUIDELINES FOR HIV PREVENTION AND TREATMENT IMPLEMENTATION PLAN IN BURUNDI

October 2020

PREFACE

Le Burundi à travers le Ministère de la Santé Publique et de la Lutte contre le Sida a actualisé les directives pour la prévention et le traitement du VIH en janvier 2020. L'actualisation de ces directives s'est basée sur les récentes orientations de l'OMS de Juillet 2019 suggérant l'élargissement de l'utilisation des combinaisons comprenant le Dolutegravir (DTG) chez les enfants, les adolescents et les adultes y compris les femmes en âge de procréer. Il s'agit d'un nouvel outil qui permettra aux prestataires de services d'utiliser de façon optimale les médicaments antirétroviraux pour la prévention et le traitement de l'infection à VIH.

En adoptant ces nouveaux protocoles pour la prévention et le traitement de l'infection à VIH et des comorbidités y associées, et en les mettant à la disposition des dispensateurs de soins, le Gouvernement montre une fois de plus par des mesures concrètes, sa volonté de mettre en pratique la vision d'un pays où le bien-être et la qualité de vie des PVVIH soient garantis au sein de la communauté. Cette vision est partagée par l'ensemble des acteurs et partenaires dans le domaine de la santé.

C'est dans ce cadre qu'un plan de mise en œuvre de ces directives vient d'être élaboré et validé en concertation large avec toutes les institutions, structures et personnes impliquées dans la lutte contre le VIH/sida au Burundi. L'objectif de ce document est de proposer une approche stratégique et opérationnelle pour accompagner la mise en œuvre de nouvelles recommandations cliniques et programmatiques. Bien plus, la mise œuvre de ces directives sera une responsabilité partagée, elle nécessitera un accroissement des investissements nationaux et en provenance des partenaires techniques et financiers de la santé.

Grâce à la mise en œuvre de ces nouvelles directives, le Burundi contribuera à atteindre les cibles mondiales de l'élimination de l'épidémie du VIH/SIDA d'ici 2030.

Je saisis cette opportunité pour remercier tous les partenaires qui ont contribué à l'élaboration de ce document de plan de mise en œuvre des directives nationales pour la prévention et le traitement de l'infection à VIH.

Nous souhaitons vivement qu'ils puissent continuer leur appui dans la lutte contre le VIH/SIDA et les Infections sexuellement transmissibles.

Fait à Bujumbura le ...../...../2020

LE MINISTRE DE LA SANTE PUBLIQUE ET DE LA LUTTE CONTRE LE SIDA

Dr Thaddée NDIKUMANA

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ACRONYMS AND ABBREVIATIONS

- 3TC: Lamivudine
- ABC: Abacavir
- AELB: Accident of Exposure to Blood and other Biological Liquids AFADS: Acceptable,
- Feasible, Affordable financially, Sustainable and Safe
- HBsAg: Hepatitis B antigen
- AIDS: Acquired ImmunoDeficiency Syndrom
- ANSS: National Association for the Support of HIV-Positive People ARV: Antiretroviral
-
- ATV / r: Atazanavir / ritonavir
- AZT: Zidovudine
- BDS: Health District Office BPS: Health
- Province Office
- CV: Viral load Ca:
- Calcium
- CD4: Stage 4 differentiation cluster CDV: Viral
- load
- CHUK: Kamenge University Hospital Center CNTS: National
- Blood Transfusion Center CPN: Prenatal consultation
-
- DMM: Monthly Multi Dispensation
- DPML: Department of Pharmacies, Medicines and Laboratories DPPS: Department of
- Health Programs and Projects
- DTG: Dolutegravir
- EFV: Efavirenz
- MTCT: Elimination of Mother-to-Child Transmission of HIV FHI: Family Health
- International
- FOSA: Health Training FTC:
- Emtricitabine
- GASC: Groupement d'Agents de Santé Communautaire GHSC-PSM: Global
- Health Supply Chain-Procurement Management and Supply

- Hb: Hemoglobin
- HDL: High Density Lipoprotein
- IAP: Early Warning Indicator
- IEC: Information Education and communication INH:
- Izoniaside
- INIs: Integrase inhibitor
- INRT: Reverse Transcriptase Inhibitor INSP: National
- Institute of Public Health OI: Opportunistic Infection
-
- STI: Sexually Transmitted Infection

- LDL: Low Density Lipoprotein LPV / r:
- Lopinavir / ritonavir
- M1: Month 1
- Mg: Magnesium
- Ml: milliliter
- CBC: Blood Formula Count NVP: Nevirapine
-
- WHO: World Health Organization PCR: Polymerase
- Chain reaction
- PDMM: Multi Monthly Distribution Point PEC: Support
-
- PEPFAR: Presidency Emergence Program for AIDS Relieve PF: Family
- Planning
- PN: Birth Weight
- PNILT: National Integrated Program to Fight Leprosy and Tuberculosis PNLS / IST: National
- Program to Fight AIDS and Sexually Transmitted Infections

- PODI: Point of Distribution
- PPE: Post-Exposure Prophylaxis PrEP:
- Pre-Exposure Prophylaxis PSI: Population
- Service International
- PMTCT: Prevention of Mother-to-Child Transmission of HIV
- PLWHA: Person Living with Human Immunodeficiency Virus RAFG: Reaching an AIDS
- Free Generation - RAL: Raltegravir
- AIDS: Acquired Immunodeficiency Syndrome SMS: Short
- Message Service
- SWAA: Society for Women Against AIDS in Africa TAR:
- Antiretroviral therapy
- TBC: Tuberculosis
- TDF: Tenofovir Disoproxil fumarate TLD: Tenofovir
- Lamivudine Dolutegravir TLE: Tenofovir
- Lamivudine Efavirenz
- MTCT: Mother Child Transmission
- IPT: Preventive Izoniazid Therapy
- USAID: United State Aid for International Development
- HBV: Hepatitis B virus HCV:
- Hepatitis C virus
- HIV: Human Immunodeficiency Virus SGBV: Gender
- Based Sexual Violence Zn: Zinc
-

I. INTRODUCTION

In its commitment to pursue the global vision of ending the HIV epidemic by 2030, among others through the objectives of the 90-90-90 strategy, by
2020, Burundi, through its Ministry of Public Health and the Fight against AIDS, begins the advance towards the expectation of more ambitious targets 95-95-95 by 2030. One of the strategies of these objectives is the implementation implementation of international strategies and recommendations. Thus, it has just adopted new guidelines for the prevention and treatment of HIV in January 2020.

The update of these guidelines was based on recent WHO guidelines from July 2019 suggesting the expansion of the use of combinations including DTG in the first line for all categories of the population except children. less than 3 years old.

It is therefore important to put in place a strategic and operational approach to support the implementation of these new directives by actors and interveners at all levels. It is with this in mind that this implementation plan provides operational guidance aimed at improving the quality of life of patients living with HIV and reducing HIV-related mortality.

II. HIV PREVENTION THROUGH ANTIRETROVIRALS

II.1. Introduction

HIV prevention is based on the combination of biomedical (such as the use of ARVs, Condoms etc.), behavioral and structural methods in order to reduce new HIV infections. In addition to commonly used prevention methods, the new guidelines introduced pre-exposure prophylaxis (PrEP) in groups at high risk of HIV transmission (serodiscordant couples and key populations)

II.2. Prevention of mother-to-child transmission of HIV

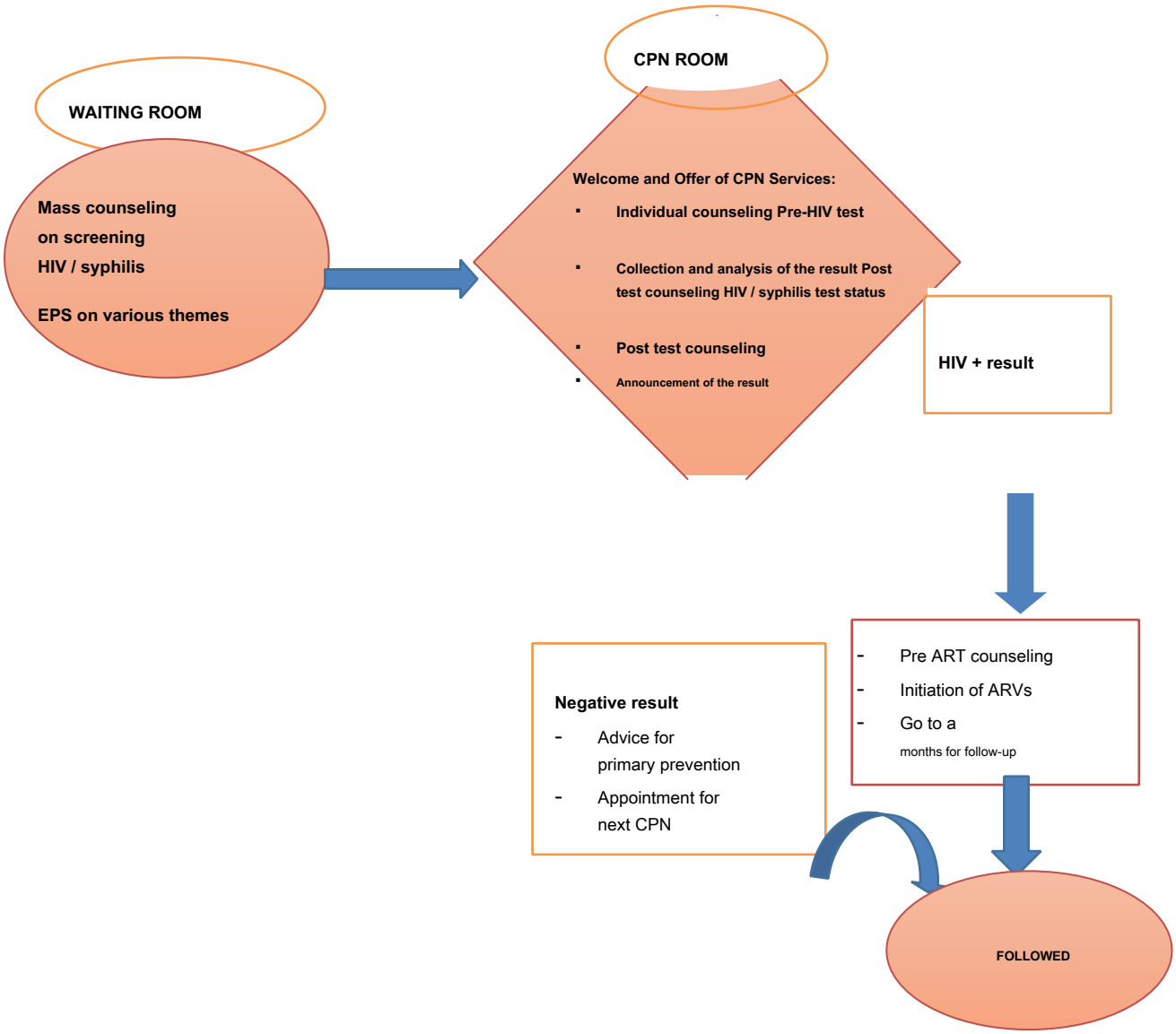
The use of antiretrovirals in HIV-positive pregnant or breastfeeding women in combination with other measures has been shown to be effective in reducing the rate of mother-to-child transmission of HIV. According to national guidelines, the approaches to implementing PMTCT interventions are:

- Integrating routine HIV testing into antenatal care services;

- Immediate initiation of ARV treatment in women screened for HIV +; Clinical and virological
- monitoring of pregnant / breastfeeding women on ART;
- Carrying out childbirth with a lower risk of HIV transmission
- The administration of ARV prophylaxis to the newborn and the follow-up of the exposed infant including after breastfeeding;
- And feeding practices with lower risk of virus transmission

II.2.1. Integration of screening for pregnant women into antenatal care services

Screening for HIV / syphilis during antenatal care as part of MTCT can significantly reduce new pediatric HIV infections and increase ART use by HIV-positive women. HIV and syphilis testing services for pregnant women are an entry point into these same services for their partners. It is therefore advisable to screen all partners of pregnant women. Schematically and chronologically, the service provider will proceed as follows:



Due to the high risk of MTCT from HIV and syphilis, it is recommended:

- ✓ To test the pregnant woman for HIV / syphilis at first contact in ANC services preferably in the first trimester of pregnancy or at first contact regardless of the reason for consultation.
- ✓ Initiate ARV and / or Syphilis treatment if the result is positive.
- ✓ Repeat HIV and syphilis testing if the result is negative every three months during pregnancy in HIV-discordant couples or in situations of continuous exposure or risky behavior
- ✓ Re-test for HIV and syphilis in the third trimester of pregnancy if the couple is HIV negative
- ✓ During breastfeeding, repeat the HIV test every three months in sero-discordant couples or in situations of continuous exposure or risky behavior and only at 6 months in the seronegative couple or if the risk of continuous exposure has been dismissed
- ✓ If the woman is HIV-negative and her partner is HIV-positive (serodiscordant couple), or in situations of continuous exposure or risky behavior (high-risk population) In addition to the above-mentioned measures, they will be offered pre-exposure prophylaxis (PrEP) if the sexual partner remains with an unsuppressed viral load or when the viral load is not available.

II.2.2. Immediate initiation of ARV treatment for women tested for HIV +

Any pregnant or breastfeeding woman tested for HIV + should be started on ART immediately. The recommended regimen is the same as for adults and adolescents if the woman exceeds 35 kg. It includes 2 INRT and 1 INIs (Integrase Inhibitor). It is an effective, simplified, better tolerated regimen, and available in combined form as a single tablet.

TABLE 1: 1ST LINE DIAGRAM FOR ADULTS, ADOLESCENTS AND WOMEN

Population category	**Option of 1 time recommended line**	**Alternatives for the 1 time line**
Adults, adolescents> 35 kg and pregnant or breastfeeding women	TDF / 3TC / DTG	TDF / 3TC (OR FTC) / EFV (400mg) AZT / 3TC + DTG AZT / 3TC + EFV (400mg)

Good to know

✓ ***Take a pregnancy test before prescribing a regimen containing DTG***

✓ ***In case of pregnancy, prescribe a regimen containing DTG and supplement the woman in folic acid during the first trimester of pregnancy***

✓ ***If pregnancy occurs in a woman on a regimen containing DTG, continue the same scheme and supplement the woman with folic acid***

II.2.3. Clinical and virological monitoring of pregnant / breastfeeding women on ART

➢ **Clinical follow-up**

Pregnant / breastfeeding HIV + women who are on ART should benefit from clinical monitoring in addition to biological monitoring. This is to strengthen treatment adherence and viral load suppression which are important elements in reducing mother-to-child transmission of HIV.

Rate of viral load measurement:

- For women infected with HIV already on ART, it is recommended to take a viral load at the first antenatal visit if the last viral load was more than 3 months old.

- For pregnant women who are newly diagnosed with HIV, a first viral load should be obtained 3 months after initiation of ART.
- Obtaining a viral load in the last trimester of pregnancy is necessary for any HIV-positive pregnant woman on ART unless the previous viral load is less than three months old.

II.2.4. Administration of ARV prophylaxis to the newborn and follow-up of the exposed infant

To minimize the risk of transmitting HIV to the child, in addition to treatment for the mother, newborn ARV prophylaxis should be started at birth.

TABLE 2: RECOMMENDED ARV PROPHYLAXIS FOR THE NEWBORN OF AN HIV + MOTHER

People	Mother	New born
New born	No matter the date start of NVP once a day PMTCT in mothers AZT	**Dual therapy for 12 weeks:** twice daily for 12 weeks (ARV)

TABLE 3: DOSE OF NVP AND AZT FOR ARV PROPHYLAXIS IN NEWBORNS

Birth weight	NVP dose	AZT dose
Birth to 6 weeks of life		
PN between 2000g-2500g	10mg / d (1ml / d)	10mgx2 / d (1mlx2 / d)
PN> 2500g	15 mg / d (1.5ml / d)	15mgx2 / d (1.5mlx2 / d)
6 weeks to 12 weeks		
	20mg / d (2ml / d) or 1 / 2cp of 50mg / d	60mgx2 / d (6mlx2 / d) or 1cp of 60mgx2 / d

II.2.5. Complementary aspects of PMTCT

In addition to ARV treatment in pregnant or breastfeeding women, there are other considerations that must be addressed to better support comprehensive PMTCT interventions.

II.2.5.1. Clean childbirth

The low route is preferred if the viral load made in the third trimester of pregnancy is undetectable, but it is necessary to do it properly:

- ✓ Disinfect the vagina with Chlorhexidine solution;
- ✓ Shorten the time between rupture of membranes and childbirth;
- ✓ Limit invasive procedures: avoid episiotomy and instrumental extractions;

- ✓ Do not milk the cord, gentle suction of the child;
- ✓ Cleanse secretions using a sterile compress;
- ✓ Clean the eyes of the newborn with physiological saline before instilling the antibiotic eye drops.

II.2.5.2 Infant feeding recommendations

It is known that in the absence of intervention, transmission of HIV through breastfeeding occurs in 5 to 20% of cases. It is currently shown that: Exclusive breastfeeding has a lower risk of HIV transmission than mixed breastfeeding during the first 6 months of life. The presence of an effective ARV treatment throughout the duration of breastfeeding (protected breastfeeding) can significantly reduce the risk of transmission of HIV to the infant.

Artificial breastfeeding increases the risk of infant mortality in developing countries.

Therefore, it is recommended that all mothers with HIV:

- To breastfeed the child exclusively at the breast during the first six months of life;
- When the infant is six months old, continue breastfeeding with complementary foods;
- And to stop breastfeeding completely, from 12 months or as soon as it is possible to feed the child in a nutritionally appropriate and safe way without breast milk.

The mother should continue to take her ARV treatment for life. Regular monitoring of mother and child is therefore recommended. Regarding the HIV-positive mother for whom it is not possible to practice protected breastfeeding, artificial breastfeeding can be offered. Nevertheless, it is necessary that it be Acceptable, Feasible, Affordable financially, Sustainable and Safe (AFADS criteria).

II.3. Pre-exposure Prophylaxis (PrEP)

II.3.1. The background to the introduction of PrEP

Burundi like other countries is in the control phase of the HIV / AIDS epidemic. It is important to adopt a public health, human rights and person-centered approach when providing health services (prevention, treatment, retention, viral load suppression) in general and in particular PrEP for anyone at high risk for HIV. Like other HIV prevention and treatment interventions, a human rights-based approach prioritizes issues of universal health coverage, gender equality and health-related rights, including accessibility, availability, acceptability and quality of PrEP services offered to beneficiaries.

PrEP was included in the old guidelines but was not implemented due to lack of logistics.

In the 2020 directives, the approach was renewed to further amplify prevention approaches in order to optimize the reduction of new contaminations.

This chapter comes to elaborate on the implementation of PrEP in Burundi.

at. Target populations

The priority groups benefiting from PrEP are:

- ✓ Serodiscordant couples;
- ✓ Key populations (men who have sex with men, female sex workers, IDUs, etc.).

b. Geographic coverage

For the HIV-negative person in a serodiscordant couple, the approach will be implemented at the national level.

For key populations, given that the approach is new and that its implementation requires a technical platform in terms of supervision and monitoring of the providers who will offer the related services, its introduction will be done gradually, starting by a limited number of FOSAs with a gradual evolution towards scaling up at the national level which will make it possible to duplicate the best practices drawn from the pilot phase.

II.3.2. The PrEP approach

PrEP (pre-exposure prophylaxis) involves the use of antiretrovirals by people who are not infected with HIV to reduce the risk of getting HIV. By definition, it is an active chemoprophylaxis for the control of HIV / AIDS.

PrEP should be provided to people at substantial risk of HIV infection and those at continued risk of exposure to HIV.

at. Principles of PrEP

- ❖ PrEP is initiated in HIV negative people to reduce the risk transmission of HIV.
- ❖ PrEP relies on using an ARV regimen with less effect secondary: TDF / 3TC
- ❖ PrEP is an additional preventive intervention, hence the need combine PrEP with other prevention interventions such as

continuous and consistent use of condoms as well as treatment for STIs which significantly increases the effectiveness of PrEP

- ❖ PrEP works if you take the medication regularly
- ❖ Assessment of contraindications and side effects of PrEP: the client will need to be examined for contraindications such as pre-existing kidney disease.

b. Counseling in the PrEP approach

The main points to be covered in counseling sessions before starting PrEP are:

- ✓ Dosage required for better protection; What to do if a dose is
- ✓ forgotten;
- ✓ Individual strategies to improve adherence; The importance of
- ✓ monitoring during PrEP; Management of side effects;
- ✓
- ✓ How to safely stop and restart PrEP; Sexual health protection measures beyond
- ✓ PrEP; Harm reduction for drug users; Global focus on HIV prevention.
- ✓
- ✓

During the counseling sessions, providers must answer various questions from the populations receiving PrEP (Key populations and serodiscordant couples)

vs. Prerequisites for PrEP

1. HIV testing

PrEP can only be started as soon as a person tests negative for HIV.

In addition, the recipient of PrEP should be prepared to have continuous follow-up with HIV tests every 3 months. PrEP continues to be given for as long as the exposure exists.

2. Clinical evaluation and preparation for adhesion

Clinical evaluation is central to the process of administering PrEP. This is a crucial step in minimizing the occurrence of resistance to the molecules used in the context of PrEP before the initiation of PrEP. The client should be examined for possible contraindications and other pre-existing pathologies (renal pathologies, hepatitis B).

Adherence preparation and support is an important part of PrEP because the effectiveness of PrEP is strongly associated with daily adherence to treatment. PrEP should be provided under conditions conducive to good adherence to treatment, and assessment and support of PrEP adherence should occur at every client contact; Clients receiving PrEP should be informed of the link to HIV CEP services if they test positive for HIV during quarterly HIV testing.

Good to know :

1. ***Due to the low level of development of resistance to molecules used in PrEP, HIV + clients who have previously received PrEP should be put on ARVs according to the first-line regimens in effect after stopping PrEP***

2. ***Clients who decide to stop PrEP (disappearance of factors major exposure to HIV) or who must stop it because of side effects or at will, should continue to receive prevention services for HIV and other STIs.***

d. How to Prescribe PrEP

The prescription of PrEP consists of a single daily intake of TDF / 3TC or TDF / FTC (emtricitabine) continuously until the major risk of exposure has ceased.

In serodiscordant couples, the seronegative partner should receive pre-exposure prophylaxis for a period of at least 6 months provided that the

HIV-positive partner put on ARV treatment performed 2 consecutive VL measurements which returned undetectable.

In the event of continuous use, the protection of PrEP does not become effective and effective until after 7 days of taking in men and 21 days in women. It should be continued for up to 2 days after the last sexual intercourse.

There is an alternative pattern of PrEP (PrEP “on demand”), that is to say a discontinuous intake of PrEP. It is effective for people who are planning their sex. It is important not to miss a dose.

If the person decides to schedule sex without a condom 24

hours in advance, the following protocol is effective for prevention:

- ✓ Take 2 tablets 2 to 24 hours before intercourse
- ✓ Take 1 tablet 24 hours later
- ✓ Then take 1 additional tablet 48 hours later.

If the individual has sex for an extended period of time, perhaps

for a few days or on a weekend, continue to take one TDF / 3TC tablet every 24 hours until you have 2 days without sex.

NB:

This stopping option is not recommended for the individual with active hepatitis B. The drugs in PrEP also suppress the hepatitis B virus, so starting and stopping PrEP can cause flare-ups and inflammation of the liver. In a patient with hepatitis B, the dual therapy will be continued for life. HIV and other STI prevention services.

PrEP algorithm (**See appendix 1)**

II.3.3. Monitoring - Evaluation and reporting

The MONITORING-EVALUATION tools will make it possible to have the data collected at the level of the PrEP implementation sites. These data will be analyzed and will allow decisions to be made during the implementation of the PrEP approach.

1. PrEP tools

at. PrEP risk assessment sheet and eligibility

This tool describes the process for determining eligibility for PrEP in patients who wish to start pre-prophylaxis. Although the definition of eligibility for PrEP differs from country to country depending on the local context and program, three criteria are universally essential before offering individual PrEP:

- ✓ Confirmed HIV negative status,
- ✓ Absence of symptoms of acute HIV infection,
- ✓ Be considered to be at potential high risk for HIV (assessment HIV risk factors).

b. Patient register

This tool provides a summary of essential longitudinal data for each patient listed in the PrEP facility report.

vs. Client file under PrEP

This tool serves as the patient's medical record and should be kept at the health facility that offers PrEP.

d. Monthly report

This is a standard form for health facilities to record monthly cumulative information about PrEP services. Aggregated data can be calculated using information entered in the PrEP patient registry.

e. Quarterly report from clients on PrEP

This tool includes a spreadsheet and summary report template for calculating and reporting PrEP-related outcomes, such as patient retention and completion of follow-up HIV testing. The information needed to complete this report is available in the PrEP Patient Registry.

2. PrEP cascade (follow-up)

An effective PrEP program is one in which people at high risk of contracting HIV are properly identified, offered PrEP, and then use it as directed.

To do this, the PrEP program must be properly targeted according to the epidemiological profile to reach the population groups and individuals most at risk. PrEP service delivery follows a cascade that is analogous to the HIV treatment cascade and includes the following steps:

- ✓ Screening of people at risk of HIV to identify potential candidates for PrEP;
- ✓ Determine eligibility and interest in PrEP; Initiate PrEP;
- ✓
- ✓ Improve adherence (that is, take prescribed medications); Continue to take PrEP over time
- ✓ (including clinical monitoring) if the risk persists; ✓ Stopping PrEP.

II.3.4 Coordination

The structures will produce a monthly activity report and document the challenges and good practices that will be discussed in monthly meetings at the health district level.

Likewise, a quarterly follow-up meeting will be organized at the provincial level.

The PNLS / IST and its implementing partners will coordinate the structures implementing this approach and a progress report will be presented.

during biannual meetings for monitoring and coordinating HIV interventions.

One-off service provider supervision missions will be carried out to ensure the proper implementation of the approach (implementation tools).

II.4. Post-exposure prophylaxis (PEP)

II.4.1. Case of accidental exposure to body fluids

An accident of exposure to body fluids (AELB) is defined as contact with blood or other contaminated body fluid, during a skin breakage (prick or cut), or by contact following a projection on a wound, damaged skin or mucous membrane. It exposes to a risk of viral transmission (HIV, VHB, VHC…).

In the event of an accident of exposure to HIV, the exposed person should seek immediate medical attention and appropriate management should be undertaken. As PEP is an emergency, it must be started as early as possible in the first few minutes and in all cases before 48 hours. The duration of prophylaxis is four weeks.

Recommended scheme for PEP is:

- TDF / 3TC / DTG from 10 years old;
- ABC / 3TC + DTG between 6 years and 10 years;
- ABC / 3TC + LPV / r for children under 6 years old.

II.4.2. Sexual exposure cases

The exposed person must go to a care structure as soon as possible. Post-exposure prophylaxis with ARVs will be prescribed under the same conditions as in the case of exposure to body fluids, that is to say as quickly as possible.
The recommended regimen and duration of intake is identical to that of post exposure to body fluids.

When it comes to cases of SGBV:

- Trying to find the partner or the abuser; Make the necessary
- medico-legal arrangements;
- In addition to HIV serology, a pregnancy test, screening and management of other STIs must be done;
- For ARV prophylaxis, refer to post exposure prophylaxis.

II.5. Primary prophylaxis of tuberculosis

Primary prophylaxis of tuberculosis with RPT / INH (Rifapentine and INH) for
1 month reduces the risk of progression to tuberculosis disease in PLWHIV. This prophylaxis consists of giving Rifapentine and INH daily every day for 1 month in children and adults. It should be given to all PLWHA, adults and children, even on ARVs for a long time.

Rifapentine and INH prophylaxis in PLWHIV, adults and children, is given after ruling out active tuberculosis. A single negative screening is sufficient to start prophylaxis. Coverage for this prophylaxis is 5 years. Ideally, it should be repeated every 5 years.

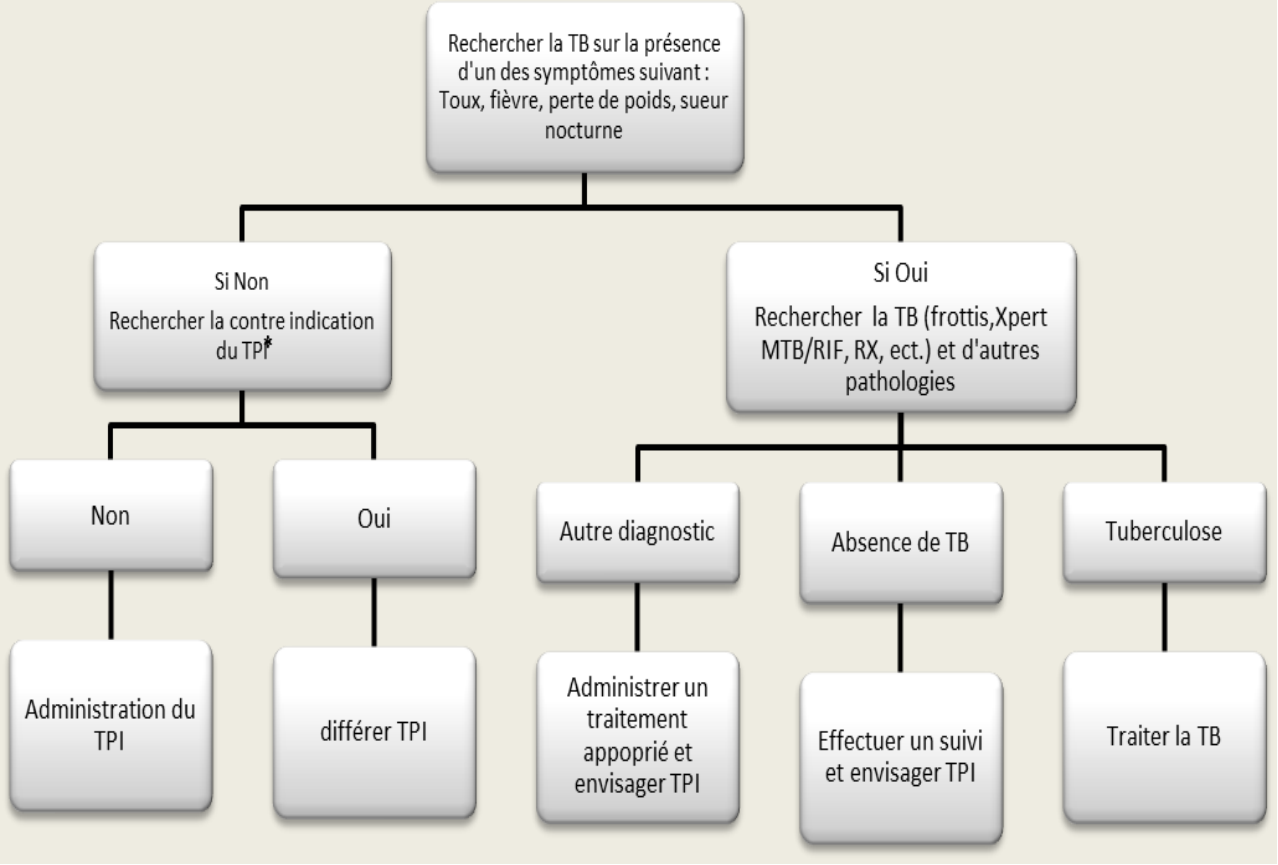


Figure 1: TPI initiation algorithm

II.6. Other prophylaxis

In the event of an opportunistic infection, particularly in cases of controlled neuromeningeal cryptococcosis, in addition to initiating ARV treatment in a patient who is not yet on ARVs, or changing the line of ARV treatment in one who was already on treatment , it is necessary to maintain secondary prophylaxis with fluconazole until the CD4 count rises to more than 200.

III. USE OF ANTIRETROVIRALS IN THE TREATMENT OF HIV INFECTION

III.1. Links between HIV testing and care

ARV treatment is started as soon as possible, and preferably on the same day, for anyone who has tested positive for HIV no later than 7 days after the positive result: **"Test and treat".** Delay in care can also lead to initiation of ART (antiretroviral therapy) at an advanced stage of the disease, compromising optimal treatment results. Faced with the continuous growth of the active line of PLWHIV, new approaches to treatment are based on prescription and multi-monthly distribution through the establishment of Distribution Points (PODI) and Grouping of Health Agents. Community (GASCs). Also, it should be noted the geographic inaccessibility of treatment sites due to the non-integration of ARV treatment in all health centers.

In addition to the missed opportunities which mean that a large proportion of exposed children are not diagnosed with HIV in a timely manner, weaknesses in the continuum of care mean that a significant proportion of children diagnosed with HIV + are not enrolled in the clinics. care structures or are very late. This also occurs in adults where people tested for HIV may be lost to follow-up even before being enrolled in ARV treatment. In order to deal with this situation, various interventions are proposed as follows:

- Standardize, multiply and distribute a link card / form between the screening services and PEC (reference and counter-reference document): the patient will be registered under the same code he received during the HIV screening service. It will be given to anyone who tests HIV positive in VCT and will specify the closest or preferred CEP site by the patient. In order to minimize the loss of follow-up, it is advisable that the patient tested for HIV + be followed on the same site. If it happens that the patient wishes to be referred for treatment at another site, a reference document must be drawn up, and actively monitored to ensure the link with the site of their choice. For internal references,

- Open the file and carry out a clinical evaluation of any person tested for HIV + on the same day and prescribe the appropriate care (Cotrimoxazole for the prophylaxis of OIs, IPT for clients screened negative for TBC, and ARVs if the preparation for the adhesion is complete) depending on the capabilities of the FOSA, or refer for ART services as needed.

- Make a follow-up schedule in agreement with the patient, to minimize the risk of discouragement and abandonment, in accordance with national guidelines.

III.2. Preparing the patient to start antiretroviral therapy

Before starting ART, health workers:
Must conduct a detailed discussion with the client (Counseling) in order to explain the benefits of the treatment, the dose, the times of taking, the possible side effects, drug interactions, the advantages of staying on the first line, the follow-up on ARVs and good compliance to avoid the development of resistance to treatment and the long-term maintenance of the undetectable viral load.

In addition to these individual benefits, the patient also receives information on reducing the risk of HIV transmission in the event of an undetectable viral load. If in doubt, the provider can repeat the HIV test in order to be reassured of the positive HIV status of the patient.

If it is a child, this discussion must be done with the parents or with the guardian and must also relate to the revelation of the disease to the child (Announcement)

NB: A standard operating procedure guide for the offer of counseling for adults and children adapted to the "test and treat" approach will be produced as a reminder and made available to the provider.

III.3. Prescribing ARV treatment regimens

The principles of treatment are:

- ✓ A public health approach that favors the standardization and simplification of treatment regimens. Thus, the guidance provided is comprehensive and covers the use of ARVs for different age groups and for different categories of populations.

- ✓ ARV treatment based on triple therapy to maximize the effectiveness of the treatment

- ✓ Maximize the durability and effectiveness of first-line ARV treatments and provide possibilities for 2 th and 3 th line in patients with treatment failure.

National guidelines for the prevention and treatment of HIV (2020) have defined optimized treatment regimens. They are based on the expansion of the use of combinations based on Dolutegravir for all adults, adolescents and children over 20 kg

The recommended first-line regimen consists of 2 INRT and 1 INIs (Integrase inhibitor). It is an effective, simplified, better tolerated regimen, and available in combined form as a single tablet.

III.3.1. Prescription of ARV treatment to new cases detected *HIV positive*

TABLE 4: RECOMMENDED FIRST-LINE DIAGRAM FOR ADULTS, INCLUDING PREGNANT WOMEN AND ADOLESCENTS OVER 35 KG

Population category	Option of 1 time recommended line	Alternatives for the 1 time line
Adults, adolescents over 35 kg and pregnant women	TDF / 3TC / DTG	TDF / 3TC (OR FTC) / EFV (400mg) AZT / 3TC + DTG AZT / 3TC + EFV (400mg)

Enrollment in the TLD is done systematically for new PLHIV except in cases of contraindication.

III.3.2. Prescribing ARV treatment for PLHIV who were on old treatment regimens

❖ ***Adult PLHIV:***

The implementation of the new directives must require the transition from the old schemes to the optimized ones. Any combination of nevirapine should be avoided. The table below summarizes the methods of switching from the old to the new schemes.

- **Patient on the first line of ART**

Old combinations	New combinations	
	Option privileged	Alternative
TDF / 3TC / EFV (600)	TDF / 3TC / DTG	TDF / 3TC / EFV (400)
AZT / 3TC / NVP	TDF / 3TC / DTG	AZT / 3TC + DTG
AZT / 3TC + EFV (600)	TDF / 3TC / DTG	AZT / 3TC + DTG
TDF / 3TC + NVP	TDF / 3TC / DTG	AZT / 3TC + DTG

- **Patient on second-line ART molecules**

Old combinations	New combinations	
	Preferred option	Alternative
ABC / 3TC + ATV / r	ABC / 3TC + ATV / r	ABC / 3TC + DTG
ABC / 3TC + LPV / r	ABC / 3TC + DTG	ABC / 3TC + ATV / r
AZT / 3TC + ATV / r	AZT / 3TC + DTG	AZT / 3TC + ATV / r
TDF / 3TC + ATV / r	TDF / 3TC / DTG	TDF / 3TC + ATV / r

❖ ***Child PLHIV:***

Slice age	Old combinations	New combinations	
		Option privileged	Alternative
Less than 3 years (<15 kgs)	**ABC / 3TC + LPV / r**	ABC / 3TC + LPV / r or **ABC / 3TC / LPV / r**	ABC / 3TC + RAL
	AZT / 3TC + LPV / r		
3 to 6 years (15-20Kg)	**ABC / 3TC + EFV**	ABC / 3TC + LPV / r or **ABC / 3TC / LPV / r**	ABC / 3TC + EFV
	ABC / 3TC + NVP		
	AZT / 3TC / NVP		
6 to 10 years (20-30kg)	**ABC / 3TC + EFV**	ABC / 3TC + DTG	AZT / 3TC + DTG
	ABC / 3TC + NVP		
	AZT / 3TC / NVP		
Over 10 years (> 30kgs)	See adult	See adult	See adult

For PLWHA who were already on diagram 1 time line other than TLD and TLE, they will switch to optimized schemes until July 2020.

From August 2020, all PLWHIV under a scheme of 1 time line not containing DTG must pass under schema containing DTG. This passage must end on December 31, 2020.

The table below details the monthly evolution of the optimization of the use of new combinations.

TABLE 5: EVOLUTION OF THE OPTIMIZATION OF THE USE OF NEW COMBINATIONS

DIAGRAM	Jan20	Feb-2020	March - 20	Apr20	May20	June20	July20		August - 20	Sep20	Oct20	Nov20	Dec20		%
TOTAL FILE ACTIVE UNDER TLE	35380	35380	35380	35380	35380	35380	15380			380	80	0	0	0%	
TOTAL FILE ACTIVE UNDER TLD	30104	30374	30644	30913	31183	31453	31723	51962	67201	67742	68061	68262	96.54%		
TOTAL FILE ACTIVE UNDER AZT / 3TC + EFV	2273	2273	2273	2273	2273	2273	2273	273	73	0	0	0	0%		
TOTAL FILE ACTIVE UNDER AZT / 3TC + DTG	77	86	96	106	115	125	135	2135	2335	2408	2408	2447	3.46%		
TOTAL	67833	68113	68392	68672	68951	69231	69511	69750	69990	70230	70469	70709	100%		

III.3.3. ARV treatment regimens in special situations

III.3.3 1. Case of HIV / Tuberculosis co-infection

Treatment for TB should be started first, followed by ART as soon as possible, and within 2 to 4 weeks of treatment for TB.
The recommended first-line regimen for adult patients who have not yet started ARV therapy is: TDF / 3TC / DTG.
Given the antagonistic effect of Rifampicin on DTG, the daily dose of DTG should be doubled (i.e. 1 tablet of TLD + 1 tablet of DTG 50 mg per day) during the entire period of treatment for tuberculosis.

For PLHIV who develop TB who are already on ART, the ARV regimen should be adapted as shown in the table below:

TABLE 6: RECOMMENDED ARV TREATMENT SCHEMES IN ADULTS AND ADOLESCENTS WITH TB / HIV CO-INFECTION

1 time line or second line of ARV treatment	**ARV treatment at the time of occurrence of TB**	**The options**
1 time line	**TDF / 3TC / DTG**	Continue the same treatment by doubling the dose of DTG during the anti-TB treatment period, ie 50 mg to 100 mg.
	AZT / 3TC + DTG	Continue the same treatment by doubling the dose of DTG during the period of anti-TB treatment
2 e line	AZT / 3TC + ATV / r	**AZT / 3TC + LPV / r (** replace ATV / r with LPV / r and double the dose of LPV / r while taking anti-TB treatment
	AZT / 3TC + DTG	Continue the same treatment by doubling the dose of DTG during the period of anti-TB treatment
	TDF / 3TC / DTG	Continue the same treatment by doubling the dose of DTG during the period of anti-B treatment

TABLE 7: RECOMMENDED ARV TREATMENT SCHEMES IN CHILDREN AND INFANTS IN TUBERCULOSIS / HIV COINFECTION

Treatment anti-tuberculosis	**Age**		**ARV treatment recommendations**
Child already under treatment anti-tuberculosis drugs that start ART	Less than 3 years old (<15 kgs);		ABC / 3TC + LPV / r or **ABC / 3TC / LPV / r** (double dose of LPV / r during anti-TB treatment) ABC / 3TC + RAL (double dose of RAL during anti-TB treatment)
	3 to 6 years (15-20Kg);		ABC / 3TC + LPV / r or **ABC / 3TC / LPV / r** (double the dose of LPV / r during anti-TB treatment) ABC / 3TC + EFV (continue same scheme)
	6 to 10 years (20-30kg)		ABC / 3TC + DTG (double the dose of DTG during anti-TB treatment if more than 25Kg) AZT / 3TC + DTG (double the dose of DTG during anti-TB treatment if more than 25Kg)
	More than 10 years (> 30kgs)		Cfr adult diagram
Child who starts anti Tuberculosis by age already on ART	**Slice**	**ARV scheme In progress**	**Recommended scheme**
	Less than 3 years (<15 kgs);	ABC / 3TC + LPV / r or **ABC / 3TC / LPV / r**	Continue the same schedule and double the dose of LPV / r during the anti-TB treatment period
		ABC / 3TC + RAL	Continue the same regimen and double the dose of RAL during the anti-TB treatment period
	3 to 6 years (15-20Kg);	ABC / 3TC + LPV / r or **ABC / 3TC / LPV / r**	Continue the same schedule and double the dose of LPV / r during the anti-TB treatment period
		ABC / 3TC + EFV	Continue the same pattern
	6 to 10 years (20-30kg)	ABC / 3TC + DTG	Continue the same regimen containing and double the dose of DTG during the antiTB treatment period if weight over 25Kg Continue the same regimen
		AZT / 3TC + DTG	containing and double the dose of DTG during the antiTB treatment period if weight over 25Kg
	Over 10 years (> 30kgs)	**See Diagram adult**	**Cfr adult diagram**

III.3.3.2 Cases of HIV / Hepatitis B co-infection

The recommendation of ARV treatment in adults and adolescents in the event of HIV / HBV coinfection is a triple therapy combining **TDF / 3TC / DTG.**
In the event of first-line failure, a patient co-infected with HIV / HBV should receive a regimen still containing TDF and 3TC:

- ✓ **TDF + AZT / 3TC + DTG**
- ✓ **TDF + AZT / 3TC + ATV / r**
- ✓ **TDF + ABC / 3TC + DTG**

NB If the substitution combination on the first line does not contain TDF, the HIV / HBV co-infected patient will continue to take the TDF in addition to the ARV molecules prescribed in the second or third line.

The newborn of an HIV / HBV infected mother should receive a hepatitis B vaccine at birth.

III.3.3.3 Diabetes / HIV comorbidity

In a PLHIV with diabetes who is on metformin, an ARV regimen containing DTG should be avoided. The other possibility is to keep the DTG and reduce the doses of metformin.

Indeed, DTG plays a potentiating role on metformin (risk of hypoglycemia induced by the concomitant intake of DTG and Metformin).

III.3.3.4 Contraception in HIV-positive women on ART

There are several contraceptive options, including condoms, oral contraceptives, implants, injectables, and intrauterine contraceptive devices (IUDs).

In women of childbearing age on ART, dual methods are recommended and consist of a hormonal method or IUD to prevent pregnancy and a barrier method (male / female condoms) to prevent transmission of STIs and HIV.

NB The choice of contraceptive method must respect human rights and allow clients to make informed choices after receiving complete and scientifically accurate information.

IV. INITIAL ASSESSMENT AND FOLLOW-UP OF PATIENTS UNDER ARV TREATMENT

IV.1. Initial assessment

He understands :

- ✓ Retesting in case of doubt
- ✓ The dosage of Hb (if AZT)
- ✓ CD4 test if possible
- ✓ Testing for HBsAg (if possible).
- ✓ The pregnancy test in any woman of childbearing age.

NB: In case of HBsAg positive, use a combination containing TDF and 3TC.

IV.2. Clinical and biological follow-up

In people on ARVs, a viral load test remains the preferred approach to assess the effectiveness of ART and the early diagnosis of treatment failure, in addition to clinical follow-up.

a) Clinical follow-up

➢ *Patients who are starting ARV treatment: In patients who have just been put on ARVs, the recommended clinical follow-up is M1, M2, M3, M4, M5, M6 and then every 3 months if there are no problems.*

➢ ***Clinical follow-up of patients on ARVs: patients on ARVs are classified into two categories and the monitoring rate depends on it:***

- **Stable patient:**

Any patient on ART who strictly meets all of the conditions below:

- ✓ Have received ART for at least one year,
- ✓ Have no adverse effects on drugs requiring treatment regular monitoring,
- ✓ Not present any opportunistic disease,
- ✓ Observe ART with proof of successful treatment (2 consecutive measurements of undetectable viral load).

Frequency of visits: a stable patient makes an ARV assessment and prescription clinical visit every 6 months and the ARV supply is done once every 3 months.

NB Patients on IPT are also supplied with INH every three months at the same time as the ARVs.

Depending on the patient's preference, their ARV supply can be done at the care site or at the community PODI.

- **Unstable patients:**

A patient who does not meet one of the above conditions is considered to be unstable.

Frequency of visits: For unstable patients, clinical follow-up and ARV supply are carried out at M1-M2-M3-M4-M5-M6, then every 2 months until M12, if the patient is observant.

b) Laboratory monitoring of patients on ART

In patients who have just been put on ARVs, the recommended biological monitoring is M3 and M6 then every 12 months if there is no problem. The viral load assay is done at 6 months and 12 months from the start of ARV treatment and then once a year. However, the viral load is measured once every 6 months for children and adolescents for whom the risk of non-compliance is high.

In all cases in pregnant women, the viral load should be done routinely in the last trimester of pregnancy if the previous CV is more than 3 months old in order to assess the risk of mother-to-child transmission of HIV. A summary of recommended laboratory tests before and after starting ARV therapy can be found in the table below.

TABLE 8: INITIAL ASSESSMENT AND MONITORING OF HIV + PATIENTS

Exams	Balance sheet initial 3	Follow-up assessments under ART				
		th month	6 th six	All month	Each year	All the 3 years
Pregnancy test	x					
CBC / Hb (if AZT)		x			x	
Urea and Creatinine (TDF)		x			x	
Albuminuria (TDF)		x			x	
Transaminases if DTG		x		x		
Fasting blood glucose (PI)					x	
HIV viral load			x		x	
CD4	x				x	
HVB serology	x					
Lipid balance (Cholesterol total, HDL, LDL; Triglycerides Pap						x
smear						x

In the event of opportunistic infection or other pathologies associated with HIV, or situations of contraindication of an ARV molecule, exploratory assessments may be requested on medical prescription, among others:

- ✓ Liver function tests,
- ✓ Uric acid,
- ✓ The lipid balance,
- ✓ Amylasemia or amylasuria,
- ✓ Any other examination depending on the pathological context

IV.3. Retention of patients on ARVs and re-engagement in care

IV.3.1. General considerations

Testing and processing is not enough. It is also necessary to keep people tested HIV positive in care. After starting treatment, patients should continue on antiretroviral therapy indefinitely. The key to the success of antiretroviral therapy, which aims to sustainably suppress viral load, lies in adherence to prescribed treatment regimens.

Treatment failure and the resulting development of drug resistance can compromise future treatment options. Long-lasting virus suppression reduces morbidity and mortality and prevents HIV transmission. Retention in care is essential to maintaining the health of PLHIV and controlling the epidemic, but it is more difficult for children, adolescents, pregnant, breastfeeding and postpartum women, men and women. populations at risk.

To keep people in care, one of the keys is to offer services adapted to their needs.

IV.3.2. Considerations When Starting Antiretroviral Therapy

Although optimizing adherence and linkage to care is essential regardless of the timing of antiretroviral therapy, evidence indicates that drug resistance is more common in people who initiate therapy later in the infection. than in those who started treatment on the first day of notification of HIV status.

It is important to discuss strategies for optimizing adherence and retention in care with patients before starting treatment.

IV.3.3. Considerations during the first six months of starting ARV treatment

Although antiretroviral therapy lasts a lifetime, the first few months of treatment are especially important. Clinical and immunologic improvement and viral suppression are expected when individuals adhere to ART, but opportunistic infections (OIs) and / or immune reconstitution inflammatory syndrome may develop, as well as early adverse drug reactions such as hypersensitivity in the first three months of treatment. Antiretroviral therapy significantly decreases overall mortality, but mortality rates are also highest during the first three months of antiretroviral therapy in patients who begin treatment at an advanced stage of immunosuppression.

It should be noted that people who miss their appointments in the first months of starting treatment are likely to have behaviors unfavorable to their health, thus leading to increased morbidity and mortality. On the other hand, early retention in treatment leads to virological suppression with an improvement in the state of health of the patients.

IV.3.4. Strategies to strengthen retention in care

The following strategies have been shown to be effective in Burundi and elsewhere, and should be widely implemented.

Strategies	Supporting documents
Schematics optimization therapeutic in adults, adolescents and children living with HIV.	The transition to more effective and better tolerated drugs, as well as the reduction in the number of doses will correct or prevent undesirable effects, improve the patient's quality of life, and optimize treatment adherence.
Provision of services differentiated	In order to relieve congestion in health care facilities, innovative healthcare delivery approaches have been developed: - Appointment spacing - Multi-monthly prescription, - Establishment of community distribution points, Extension of visiting - hours, - Organization of adherence support sessions (therapeutic weekends, discussion groups, summer camps, etc.) for children and their families and adolescents Healthcare providers' time will be freed up so they can devote more time to the patients who need it most.
Dispensation multi-monthly	Multi-monthly dispensing (DMM) has been shown to improve retention in care and reduce the load on care sites. Stable patients on ARV treatment should be offered three to six months of treatment with refills, with an optimized dispensing model.
Research active of patients who missed appointments	Identify and locate PLWHIV who are not linked to care, who missing in the first week or lost is an important measure of the quality of care. Successful tracking and tracing of lost-to-follow-up PLHIV will allow targeted interventions to help return them to care / treatment.
Strengthening observance	Generally speaking, when patients are educated and well counseled, they are empowered to take charge of their care and are more likely to remain in care. People whose CV is still detectable, those who have just started ARV treatment, those who have missed appointments, children and adolescents require from providers targeted, innovative interventions adapted to the experience of these patients. , as well as more intensive support.

IV.3.5. Retention of care for different categories of the population

a) Pregnant, breastfeeding or postpartum HIV-positive women

For this category the transition from HIV care to antenatal care is a potential point of loss of follow-up. Interventions include:

- ➢ Consultation of registers to ensure that women are followed through the different ARV service delivery points;
- ➢ Peer support to improve the transition through the different service delivery points,
- ➢ The organization of support groups among adolescent pregnant women living with HIV.
- ➢ A family-centered approach and better involvement of men.

b) Children

Parents and / or guardians of children have a responsibility to understand the importance of retaining children in care, especially younger ones, in care. As long as the level of maturity in the child is still low to understand what HIV is, the announcement of positive HIV status to children usually takes place late. It is therefore difficult to discuss with them the importance of follow-up.

Interventions include:

The invitation of parents and / or guardians to come for regular follow-up.
Scheduling of clinical visits for children, including where and when to visit with parents or guardians to facilitate retention of care for both caregivers and children.

Strengthening the process of announcing HIV status to children. It can start early with age-appropriate messages and tools.
Health care providers should also properly monitor children's weight changes, especially between the ages of two and ten, in order to regularly adjust dosages.

c) Adolescents

In general, adolescents (ages 10-19) and youth (ages 20-24) living with HIV (PLHIV) have antiretroviral therapy retention and adherence rates, as well as withdrawal of antiretroviral therapy. viral loads lower than other age groups.

The reasons are multiple: disgust with frequent visits to health facilities, time spent waiting for services and missing school, negative attitudes of health care providers, concerns of adolescents regarding their privacy and confidentiality, limited opportunity to discuss their concerns, distance to health facilities or care sites, as well as health expenses are all obstacles to the retention of adolescents in care. Interventions include:

- ✓ Models of service delivery outside of health facilities that help adolescents engage in care, such as peer interventions and community services;

- ✓ The implementation of adolescent-friendly health service approaches to improve quality (health services for young people available in youth-friendly health centers, etc.);

- ✓ The provision of services for adolescents at specific times or in areas separate from those of adults, with appointment systems adapted to their schooling;

- ✓ Comprehensive services that meet multiple needs, including psychosocial, and sexual and reproductive health,
- ✓ Close monitoring of adolescent engagement in care, rapid and proactive follow-up, and implementation of re-engagement strategies.

- ✓ Training providers on appropriate care for adolescents living with HIV;

- ✓ The existence of standard operating procedures and procedures for patient-centered care.

- ✓ Optimizing youth engagement by integrating their perspective and feedback into the design, implementation, monitoring and evaluation of interventions.

IV.3.6. Active search strategy for patients who missed appointments

ARV treatment so far remains for life. The catches are daily. The effectiveness of the treatment is always the result of good compliance and adherence. The evaluation of its effectiveness is made by the assay of the viral load. Failure to meet the appointment is an early warning sign of poor adherence / compliance. To better improve retention and keep the queue active, ARV treatment sites should follow the following operational procedures:

Standard 1: Make the granting of appointments part of the routine of providing care.

- ✓ Record the date of the next appointment in their file and in the patient's diary.

- ✓ Before returning home, the patient goes to reception to have the date of the next appointment recorded in the diary kept by the reception service.

Standard 2: Every day, the reception service draws up a list of patients who have an appointment the next day.

- ✓ The list is sent to the department for which the patient has an appointment.

- ✓ The providers of these services consult the list and analyze the files of these patients.

- ✓ If there is either patient who needs to be called back, the provider calls them either by phone call, SMS, WhatsApp or other agreed communication channel.

Standard 3: Every day, the reception service draws up a list of patients who have not responded to the appointment.

- ✓ The list of these patients is sent to all departments.
- ✓ The names and surnames of these patients are recorded in the active search support for patients who have not responded to the appointment;
- ✓ The list should also contain the addresses and contact numbers of patients or their referees.

- ✓ Site providers actively seek these patients using phone calls and home visits.

- ✓ Health mediators collaborate with community relays / Community health workers for research.

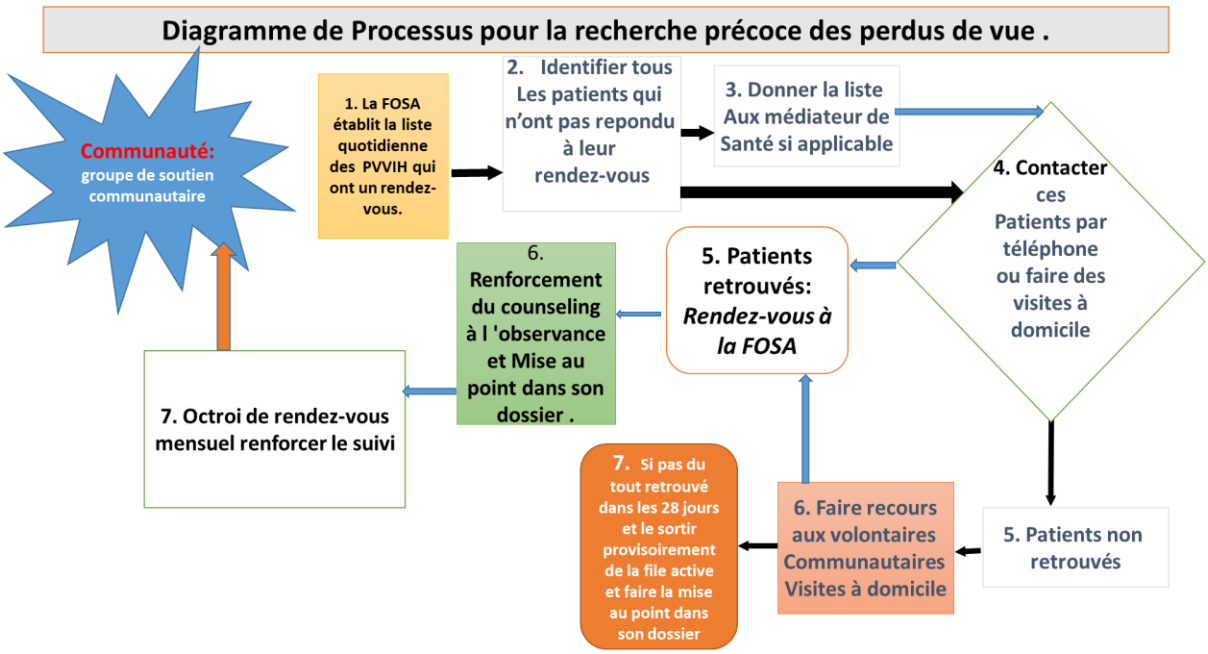
- ✓ After 28 days of research, the providers complete the modalities that are proposed in the register and if the patient has not been found, he must be suspected of lost to follow-up and the search continued. After three months of unsuccessful research, the patient will be classified as lost to follow-up and removed to the active queue.

Standard 4: If the patient has been found, take him or her as an unstable patient.

- ✓ Plan monthly follow-up consultations with him;
- ✓ Resume the sessions and stages of therapeutic education as mentioned above;

- ✓ Design or adjust his adherence and compliance plan with the patient; An update medical
- ✓ consultation is mandatory;
- ✓ Repeat the viral load sampling plan adapted to the patient's situation.

The following diagram gives an overview of the steps in the process of actively finding the lost to follow-up and managing the recovered patients.



IV.3.7. Re-initiation of antiretroviral therapy in patients who have stopped treatment

Re-engaging in care requires a search for information on the care history of the patient who discontinued treatment. All of the following history should be recorded:

- ✓ What ARV drugs was the patient taking and for how long before they were lost to follow-up?
- ✓ The reasons for stopping treatment;
- ✓ The occurrence or not of adverse effects;
- ✓ Any information on viral load measurements taken in the past.

There are therefore several scenarios to consider:

- If the patient was on their first-line regimen well, side effects were not the reason for stopping and the viral load was suppressed (or if no viral load results are available), restart the regimen. initial therapy. Get a viral load after 6 months of antiretroviral therapy.
- If the viral load is not suppressed after six months of treatment, strengthen adherence and repeat VL after 3 months. If their viral load is still
  > 1000 c / ml, manage virological failure;
- If the patient has stopped treatment because of side effects, deal with side effects first.

IV.4. Organization, procedures for setting up and functioning of community-based ARV distribution points

IV.4.1. Why do PODIs among stable PLWHIV?

Patients who are stable and adhere to ARV treatment need to receive their medication and, if necessary, treatment in record time so that they can continue to go about their business, support their families and achieve other life goals.

IV.4.2. Benefits for patients

✓ Easy, fast and continuous access to ARV drugs and other drugs; Opportunity to establish a
✓ support group with other patients; The patient is encouraged to take charge and control himself;
✓
✓ Mutual assistance of patients from the same community including the follow-up of those who do not appear in the care services;
✓ Improved patient retention in treatment and viral load suppression;

✓ Opportunity to establish a support group with other patients; The patient is
✓ encouraged to take charge and control himself;

IV.4.3. Benefits for the health system and health facilities

➢ Reduction in the volume of patients who visit health facilities with a gain in the quality of care;

➢ Clinicians have more time to:
- Receive new patients:
- Introduce them to treatment,
- Caring for patients who are unstable or at risk of treatment failure.

IV.4.4. Procedure for setting up PODIs around health facilities

Providers identify all stable patients in the active queue;

✓ Depending on the number, volunteering and their origin, the providers facilitate their distribution into different PODI-Groups;
✓ The PODI-Group has a name in relation to the health facility to which it is affiliated and a number according to the number of support groups retained by FOSA (example ANSS PODI-Group 1, ANSS PODI-Group 2 etc…); Each PODI-Group has a maximum of 30 beneficiaries (5-30); During
✓ the consultation at the health facility, providers offer the newly stable patient the PODI-Group by
✓ presenting the advantages, the procedure, the operation;

✓ The service providers draw up a reference sheet to the PODI-Group that the latter has chosen in two copies;
✓ This sheet must include, in addition to the patient identification, the therapeutic regimen:

- A copy is placed in the patient file at the FOSA,
- A second copy is placed in the PODI-Group folder

✓ The facilitator (ASC / or PVVIH peer) responsible for the PODI-Group enters in the patient's file the name / number of the PODI-Community support group to which he has been transferred;

✓ The PODI-Group facilitator enters the patient's name on the list of the PODIGroup to which he has been transferred;

✓ The patient is informed about the date of the next visit within the framework of the PODIGroupe;

✓ The patient receives instructions on the meeting point for the next PODI-Group visit;

✓ The patient is also informed about what to expect at the next visit.

In short, it is necessary:

- Systematic categorization of stable and unstable patients;
- Have a list of patients eligible for PDMM and update it monthly;
- Ensure the availability / use of prescription cards or multi-monthly prescription registers in the health facilities;
- Make the Multi-monthly Prescription / Dispensation (6 months / 3 months) for eligible stable patients;
- Set up community support groups / PODI of patients from the same locality according to their consent (5 to 30 patients by the Group of Community Health Agents "GASC");
- Organize an orientation meeting on the functioning of GASC / PODI at community level with members;
- Supervise the election of officials of GASC / PODI;
- Reconcile the supply appointments of the members of each GASC / PODI.

IV.4.5. Organization of attendance at the PODI-Group

✓ All members of the PODI-Group must present themselves on the day of medication distribution;

✓ In case of absence, the patient must obtain supplies from the FOSA;

✓ If the patient has not withdrawn their medications on the day of the appointment, their details will be sent to the health facility to be included in the patient tracking and monitoring system;

✓ In collaboration with the other members of the PODI-Group, the facilitator will be responsible for documenting the reason for non-supply.

IV.4.6. The terms of supply.

➢ Medical prescriptions are renewable for 3 to 6 months;
➢ They are made in two copies including:
- One is kept in the patient's file at the health facility,
- The other in the PODI-Group file to which the patient belongs.

IV.4.7. Access to Medicines in the PODI-Group

➢ The drugs will be repackaged at the health facility pharmacy for a period of 90 days (three months for each patient);
➢ On the day of the meeting, the facilitator brings the drugs to the meeting place;

➢ Each patient signs for the receipt of his medication;
➢ Sustained contact with the pharmacy manager is necessary to ensure that the drugs are ready on the day of the PODI-Group;
➢ Medications that are not distributed on the day of the PODI-Group must be returned to the pharmacy the same day.

IV.4.8. Monitoring and Evaluation of PODI interventions

✓ Each PODI-Group must have a register;
✓ The health facility will have a PODI file containing the prescriptions of all patients affiliated to the group;
✓ The PODI-Group register is used at each visit (refer to the register and user guide);

✓ The register must be returned to the health facility after the visit;
✓ The register should be checked regularly by the PODI facilitator at the health facility (in charge of dispensing)

NB : After the meeting of the PODI-Group, all the information contained in the register of the PODI-Group must be transferred to the register of the health facility.

IV.4.9. Monitoring ARV Drug Toxicity and Adverse Events

Concerns about the toxicities and side effects of ARVs are among the most common reasons given for not adhering to ART, stopping ART or switching to ARVs. It is recommended that a standardized approach be used to integrate toxicity and adverse reaction monitoring into the monitoring and evaluation system.

Various interventions must be carried out:

✓ Collect information related to toxicity and adverse effects due to ARVs in patient records.

✓ Complete a notification form and regularly report effects unwanted drugs.

✓ Collect early warning indicators (IAPs) of HIV resistance to ARV.

TABLE 9: THE MOST FREQUENT TOXICITIES OF FIRST-LINE AND SECOND-LINE ARVs

Type of toxicity	**Molecule incriminated**	**Molecule substitution**
Drugs of 1 time line		
Renal toxicity: renal tubular damage Bone marrow	TDF	AZT
toxicity (anemia, neutropenia)	AZT	TDF
Mitochondrial toxicity: Lactic acidosis, hepatic toxicity, lipodystrophy, myopathies	AZT	TDF
2 drugs th line		
Hypersensitivity reaction	ABC	AZT or TDF
Renal toxicity	TDF	ABC
Metabolic abnormalities: hyperlipidemia, fat accumulation, insulin resistance, diabetes and osteogenesis	LPV / r	ATZ / r

The decision to modify treatment depends on whether the toxicity is attributable to a given product and the severity of the signs of toxicity.

TABLE 10: GRADE FOR THE TOXICITY ASSESSMENT

Hematology	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**
Hemoglobin	8.0 - 9.4 g / dl	7.0 - 7.9 g / dl 6.5 - 6.9 g / dl 750 -		<6.5 g / dl
Neutrophils	1000 - 1500 / mm 3	999 / mm 3	500 - 749 / mm 3	<500 / mm 3
Platelets	75,000 - 99,000 / 50,000 –74,999 / 20,000 - 49,999 / <20,000 / mm 3 mm 3	m 3	mm 3	
Liver enzymes				
AST (SGOT)	1.25 - 2.5 x Nl	> 2.5 - 5.0 x Nl	> 5.0 - 10 x Nl	> 10 x Normal
ALT (SGPT)	1.25 - 2.5 x Nl	> 2.5 - 5.0 x Nl	> 5.0 - 10 x Nl	> 10 x Normal
GGT	1.25 - 2.5 x Nl	> 2.5 - 5.0 x Nl	> 5.0 - 10 x Nl	> 10 x Normal

Phosphatases alkaline	1.25 - 2.5 x Nl	> 2.5 - 5.0 x Nl	> 5.0 - 10 x Nl	> 10 x Normal
Pancreatic enzymes				
Amylase	> 1.0 - 1.5 x Nl	> 1.5 - 2.0 x Nl	> 2.0 - 5.0 x Nl	> 5.0 x Normal
Lipase	> 1.0 - 1.5 x Nl	> 1.5 - 2.0 x Nl	> 2.0 - 5.0 x Nl	> 5.0 x Normal
Lactate	<2.0 - 1.5 x	<2.0 - 1.5 x	Increases	Increases
	Nl Without acidosis	Nl with acidosis	pH <7.3 without clinical severity	pH <7.3 without gravity clinical
Gastrointestinal disturbances				
Nausea	Reliable or transient, without plug impact on reduced food intake	Moderate or Severe food less than 3 days	or reduction food from for more than 3 days	Requiring a hospitalization
Vomiting	Low or transient; 2 to 3 per day or day less than one week	Moderate or persistent; 4 to 5 feeding episodes weak or fluids in vomiting 24 hours or more than one hypotension week	Severe with any episodes or vomiting orthostatic or required infusion required	Shock hypovolemic or for rehydration
Diarrhea	Low or transient; 2 to 3 by day or day low or diarrhea less one more week	Moderate or persistent; 5 to 7 abundant episodes hypotension episodes orthostatic or hospitalization Furthermore one stool / day week	Diarrhea or hypovolemic of 7 for or rehydration infusion required	Shock or required

Rash hypersensitivity you	Erythema, pruritus	Rash maculo diffuse papular	Vesicles or scaling or elements ulceration	One of following: Dermatitis exfoliative, erythema multifaceted, syndrome Stevens Johnson, lesions mucous membranes extensive

TABLE 11: PRINCIPLES OF MANAGEMENT OF ARV TOXICITY

✓ Determine the importance of toxicity (grade):

✓ Make an inventory of concomitant treatments and assess whether the toxicity is linked to an ARV or an other treatment (example: cotrimoxazole) or for another cause:

✓ Consider other possible illnesses because any event occurring during treatment is not necessarily linked to ARVs.

✓ Evaluate the imputability based on clinical or biological signs, others assumptions and chronology of events

✓ **Manage side effects based on their severity:**

- Grade 4 (severe, life-threatening): immediate discontinuation of all ARVs, treat side effects (symptomatically or specifically) and reintroduce ARVs modified according to the molecule involved in the toxicity when the patient is stabilized

- Grade 3 (severe reaction): substitute the offending ARV without stopping the other ARVs Grade 2
- (moderate reaction): continue the ARVs for as long as possible. If the patient does not respond to symptomatic treatment, consider a substitution of the molecule in question by continuing the ARV treatment.
- Grade 1 (minor reaction): no change in treatment

✓ Ensure adherence to treatment in the event of a minor or moderate reaction

✓ If ARV treatment is stopped for major toxicity, all ARVs should be stopped until the patient stabilizes.

NB:

1) It is advisable to monitor and report serious side effects in order to collaborate for better management.

2) Compliance with national protocols remains a must

TABLE 12: MANAGEMENT OF THE MOST FREQUENT DRUG INTERACTIONS WITH DTG

Key drug	Precautions to take
Amodiaquine	Using another antimalarial medicine
Carbamazepine	Double the dose of DTG or use another anticonvulsant
Phenytoin or Phenobarbital	Use another anti-convulsant
Metformin	Limit the dose of Metformin to 1000 mg per day and control blood sugar in case of combination with DTG or avoid it
Rifampicin	Double the dose of DTG or avoid it
Products containing Al, Mg, Ca, Zn (anti acids, multivitamins and supplements)	Take them 2 hours before DTG or 6 hours after DTG

IV.5. Monitoring of resistance and management of treatment failures

IV.5.1. Monitoring ARV resistance

Resistance is a phenomenon whereby a virus escapes the action of certain drugs when these should limit its multiplication.
To avoid the appearance of resistance, the viral load must be maintained at a threshold of undetectability (CV less than 1000 copies / ml).
For this, it is necessary to follow the ARV treatment as prescribed and this requires motivation and organization to respect the instructions for taking the treatments.

Resistance to ARV treatment is suspected by a viral load that is still detectable after two consecutive measurements, whether or not associated with the appearance of new infections despite increased compliance and monitoring of PLWHIV. In this case, change the treatment line and continue to strengthen adherence.

IV.5.2. Management of treatment failures

Confirmation of treatment failure should be made after ensuring good compliance. In the event of poor compliance, it is necessary to reinforce the latter first and reassess later.

Switching to the second or third line of treatment is made if ARV treatment fails.

The assessment of therapeutic failure is done at 3 levels:

- Virological by measuring the viral load,
- Immunological by measuring CD4,
- Clinical by evaluating the progression of the disease (occurrence / persistence of OIs).

Viral load remains preferred for monitoring therapeutic success and early detection of ARV treatment failures.
Virologic failure is defined by a CV ≥ 1000 copies, 6 months after a well-conducted treatment or an undetectable CV which becomes detectable again during the treatment.

Clinical failure is defined by the appearance of new infections classifying the patient as WHO stage 4 or 3 after more than 6 months of ARV treatment.
However, this last definition has its limits depending on the low possibilities of diagnosing opportunistic infections in treatment centers.

In addition, patients who have started ARV treatment with a very low CD4 count and which does not return, remain exposed to HIV-related infections even if they are in virological success. In this context, in patients who started ARV treatment late, a new CD4 assay may be useful to assess the level of immunological recovery under treatment.

These failures can be isolated or associated.

A CV viral load> 1000 copies / ml after 2 measurements taken 3 months apart points to virological failure and leads to a change in treatment.
The appearance of a new infection or condition classifying stage 3 or 4 (can be an indicator of treatment failure, hence the interest of the measurement of the CV measurement in these conditions to confirm or rule out failure at treatment).
In the event of failure identified as defined above, **it is above all necessary to analyze the causes of the failure and in particular the level of compliance.** Once the failure analysis has been completed **and the corrected causes,** offer the patient a treatment of 2 th

line if it was in 1 time line and 3 th line if it was in 2 th.
The cause of treatment failure is often resistance to treatment, induced by poor compliance. It is essential, on the one hand, to discuss the indication of passage to a higher line (2 th or 3 th) as a team

multidisciplinary to indicate the failure but also to understand the reasons and on the other hand, to strengthen compliance before moving to a next line. (Appendix 2 details what to do with an increased viral load).

The tables below show the second-line regimen proposed in the event of treatment failure with the first-line regimen:

TABLE 13: RECOMMENDED SECOND LINE DIAGRAM FOR ADULTS, ADOLESCENTS AND WOMEN

Population category	**Failed patient under Option 2**	**time line 1 time line recommended**
Adults, adolescents over 35 kg and women	**TDF / 3TC / DTG**	**AZT / 3TC + ATV / r**
	AZT / 3TC + DTG	ABC / 3TC + ATV / r

TABLE 14: RECOMMENDED SECOND LINE DIAGRAMS IN INFANTS AND CHILDREN

age range	**Fail under 1 time line**		**Recommended option for the 2 th line**
Less than 3 years old (<15 kgs);	ABC / 3TC + LPV / r **ABC / 3TC / LPV / r** ABC / 3TC + RAL	or	AZT / 3TC + RAL AZT / 3TC + LPV / r
3 at 6 years old (15-20Kg);	ABC / 3TC + LPV / r **ABC / 3TC / LPV / r** ABC / 3TC + EFV	or	AZT / 3TC + RAL AZT / 3TC + LPV / r
6 to 10 years old (20-30kg);)	ABC / 3TC + DTG AZT / 3TC + DTG		AZT / 3TC + LPV / r ABC + 3TC + LP / r
More than 10 years (> 30kgs) **Cfr adult diagram**			**Cfr adult diagram**

V. OPTIMIZATION OF THERAPEUTIC EDUCATION FOR PLHIV PATIENTS

Therapeutic education is a process of providing patients with useful information that will enable them to better manage their disease and its treatment.

The education process begins with the patient's first contact with the healthcare provider. The importance of this chapter is to describe the main steps in the process that health care providers should follow to provide ARV initiation counseling, therapy education, and adherence support. To optimize the results of this process, the following should be taken into account.

V.1. Attitudes and general principles to be followed by providers.

V.1.1. Before the session / session.

Before receiving patients, providers must ensure the availability of appropriate inputs and tools, namely:

✓ Pens and other tools that are used during the session;
✓ The necessary records;
✓ Blank patient records;
✓ Medication ;
✓ Support for therapeutic education;
✓ The list of community support organizations / community relays;
✓ Etc.

Before receiving the next patient, take at least 1 minute to concentrate on welcoming them better.

V.1.2. During the session / session.

- ➢ Welcome the client, say hello, invite him to sit down, introduce himself, get to know him;
- ➢ Make the client feel at ease and comfortable;
- ➢ Ask open-ended questions that facilitate dialogue in order to have a lot more information;
- ➢ Guarantee the confidentiality of all information that will be collected during the session;
- ➢ Listen with great attention, encourage the client to speak through words, gestures ...
- ➢ Use clear language to provide information / explanations to the client, use examples to facilitate understanding;
- ➢ Help the client to acquire knowledge about HIV / AIDS and ARV treatment

- ➢ Encourage clients to ask questions about ARV adherence and adherence;

- ➢ Repeat the information provided, repeat it in other words (rephrase), use other examples to ensure that the client has understood;

- ➢ Ask the client for the Community reference person who can provide assistance in case of need;
- ➢ Inform the client about the existence of other services including the FP, CPN, TBC, dietetics, etc ...

V.1.3. After the session / session.

- Summarize the key messages from the interview; Discuss any other
- matters the patient may have,
- Plan with the patient the other follow-up visits and the content to be discussed; Complete the date
- of the next appointment in the register and file; Encourage the patient to adhere to the treatment
- and to respond to the appointment set;

- Ask him to designate a person who can remind him of the appointment and or visit his home if necessary;
- Give the patient IEC supports on adhesion if available at the site;
- Give him the name and telephone number of a site provider that he can contact if necessary;

- Update patient records and registers.

V.2. The main Sessions and Steps to follow

For any HIV-positive patient, site providers should offer counseling tailored to initiating same-day ARV treatment and therapeutic education for better adherence and adherence. Since the patient cannot remember everything in one session, the site providers will make sure to organize three sessions over time with specific content.

Session / session 1: The day of diagnosis and initiation of ARVs
Session / session 2: The first follow-up visit after the first month of ARV treatment

Session / session 3: The second follow-up visit after two months of ARV treatment.

Session / session 1: The day of diagnosis and initiation of ARVs.

This first session should be conducted to help the patient design an individual adherence plan. To achieve this, the service provider will have to follow the following steps:

Step 1: Discussion with the patient on the nature of the disease and the treatment.

- ✓ Assess the patient's knowledge and perception of the nature of the HIV / AIDS disease
- ✓ Identify the patient's expectations regarding ARV treatment
  Explain the goals of ARV treatment and the benefits of viral load testing.
- ✓ Explain the advantages of starting ARV treatment the same day and continuing it for life;
- ✓ Use educational adhesion materials if available;
- ✓ Explain to the patient that all the staff of the Site is there to offer support to the patients throughout the care process.
- ✓ Invite the patient to make an alert whenever a problem or unexpected effect occurs;
- ✓ Ask him simple questions to see if he understands.

Step 2: Talk to the patient about life goals.

The provider helps the patient understand that life must go on even though he or she is infected with HIV.

- ✓ The provider asks the patient to imagine things that could help keep a better life;
- ✓ Ask the patient to name his current projects and those planned for the future;
- ✓ Ask the patient to name three things that they think are important and that they may have as long as the ARV treatment has been taken correctly. Ex Marriage, having a child ...
- ✓ The provider must then insist on explaining more that a well-taken treatment can improve the quality of life of the person.

Step 3: Identify the appropriate community support system for the patient.

To achieve this, the service provider will ask the following questions:

- ✓ Who can support you in taking ARV drugs?
- ✓ Do you have a support group you belong to for example: prayer group, associations of PLWHA, club of friends.

✓ Do you think it is important to share your HIV status with someone close to you?

✓ Could you accept that a provider, a community relay can visit you or contact you by phone?

✓ Who will be able to remind you of your next appointment?

Step 4: Evaluate the possibilities of responding to the next meetings.

The provider will help the patient plan for future appointments by asking the following questions:

✓ How do you plan to come to the next meeting?

✓ What will you do if some event prevents you from answer the appointment?

Step 5: Assess the patient's willingness to start ARV treatment immediately.

The provider will ask the following questions:
Now that we have discussed all the aspects concerning the disease and the ARV treatment, do you agree to start the treatment?

If the patient agrees to start ARV therapy, praise the patient and move on to step 6.

✓ If the answer is no, handle this flexibly and explore the reasons for this. refusal;

✓ Help the patient to identify the barriers that prevent him from starting treatment;

✓ Rediscuss the goals of life and encourage the patient to change his mind;

✓ Schedule to restart another session or refer for psychosocial intervention.

Step 6: Establish a treatment plan with the patient.

The provider asks the question as follows:

✓ Taking into account other daily activities and occupations, what is your best time to take ARVs?

Based on the response, the provider explains and notes in the patient's chart.

Step 7: Anticipate the management of forgotten doses for various reasons.

The provider asks the following question:

✓ If by any chance you forget to take a dose / dose than what you are going to to do ?

✓ Advise the patient to take the missed dose as soon as possible and to make an effort not to fall into the same situation again.

✓ If the delay exceeds 6 hours of time, it is better to wait for the time of the next dose.

✓ *Explain that even if you happen to skip a dose never take a double dose / amount of medication.*

Step 8: Help the patient to identify strategies / supports for reminding the times of taking ARVs for better adherence.

The provider asks the patient the following question:

✓ What are the means or strategies you will use to avoid forgetting to take medication?

Depending on the patient's response, the provider reinforces the patient's ideas or suggests other means, for example: cell phone alarm, watch alarm, designate someone from the family who will remind him of the taking times. of ARVs.

Step 9: Help the patient to better store ARV drugs.

The provider asks the patient the following question:

✓ Where is the best place to store your ARV drugs?

✓ If you think that it is possible not to have access to the place where you usually keep your medicines,

✓ How do you plan to keep at least the amount corresponding to two takes?

Based on the patient's responses, the provider will give appropriate advice.

Step 10: Anticipate the management of drug side effects.

The provider asks the following questions:

- Do you know or have you heard of the side effects of ARVs?
- If you happen to have side effects, how do you go about it?
- Do you have someone you could contact for advice?

The provider must then reassure the patient of the following:

✓ Explain to the patient that ARVs can cause side effects but that this does not happen to everyone.

✓ Explain that minor side effects in the form of minor digestive discomforts, headaches and a feeling of fatigue, especially at the start of treatment, are temporary and disappear over time.

✓ Explain to the patient that if he happens to vomit the tablet within 1 hour of taking it, it is better to take another tablet.

✓ Serious side effects are rare

✓ Encourage the patient to make a medical visit to the health center on closer whenever he feels a health problem.

- ***Make a summary of this first session / session in the patient's file and in the adherence follow-up sheet; Accompany the patient to the pharmacy and introduce him to the pharmacy provider who is responsible for dispensing ARVs;***
- ***Give the ARV drugs and mark the times of intake on the boxes;***
- ***Open the medicine boxes with the patient and show the tablets***
- ***Give him the date of the next appointment in a month and mark this date in his health book or other media***

Session / session 2: The first follow-up consultation after the first month of ARV treatment

✓ During this session, the provider should assess the patient's experience first weeks on ARV treatment and assess how the patient was able to apply the adherence measures as agreed on the day of initiation of ARV treatment.

✓ Identify with the patient the difficulties encountered and adjust the individual plan of adherence;

✓ Continue the other stages of therapeutic education.

Step 11: Anticipate the management of possible trips

The provider asks the patient the following question:

- Do you have a plan to travel in the weeks or months to come?
- How do you plan to continue taking ARV treatment if you are traveling?
- What will you do if you travel unexpectedly without having had time to come to the health center?

The provider should inform the patient of the following:

✓ It may happen that improvised trips occur but the best approach is to go to the health center before the trip to discuss it with the providers in order to assess the possibilities of giving you the quantity

medication that will cover the travel days or the granting of a transfer letter if applicable.

✓ If the trip was not planned and you leave without going through the CDS,
As soon as you arrive in the new zone, it is very important to go to a nearest health center to see if it is possible to have the drugs and the required conditions without waiting for you to be out.

Step 12: Anticipate the management of drug and alcohol consumption

The provider asks the patient the following question:

✓ Do you have a habit of consuming drugs or alcohol?

✓ If a patient uses narcotics / alcohol how can he make sure that the drugs are taken as prescribed?

✓ Do you think that the consumption of narcotics / alcohol can have any negative effects on the effectiveness of ARV drugs?

Based on the patient's responses and comments, the provider explains by saying this:

- Ideally, it is best to cut down on alcohol and narcotics when you are on ARV treatment. If you have difficulty giving up at least make sure that you don't forget to take the drugs because of alcohol and narcotics.

- If the patient acknowledges having disorders following the consumption of alcohol / narcotics, the provider adopts an attitude of understanding him and proposes a referral to community support groups or appropriate center for specific care. If possible, offer her a list of specific community support groups that exist in her home community.

- ***Make a summary of this second session in the patient's file and in the adherence monitoring sheet and update the objectives and the adherence plan if necessary. Accompany the patient to the pharmacy and introduce him to the pharmacy provider who is responsible for dispensing ARVs;***

- ***Give the ARV drugs and mark the times of intake on the boxes;***

- ***Give him the date of the next appointment in a month and mark this date in his health book or other media.***

Session / session 3: The second follow-up consultation after two months of ARV treatment.

- ✓ During this session, the provider must still assess the patient's experience during the two months on ARV treatment and assess how the patient was able to apply the adherence measures as agreed during the previous visit.

- ✓ Identify with the patient the difficulties encountered and adjust the individual adherence plan if necessary;
- ✓ Continue the other stages of therapeutic education which are centered this time on information relating to the various tests which are carried out as part of the monitoring of the effectiveness of the ARV treatment.

The provider explains by saying this:

- ➢ To find out if the ARV treatment you are taking is working, a test called a viral load should be done. According to the instructions of the Ministry of Public Health and the Fight against AIDS, this examination must be done at 6 months from the first day of taking ARV treatment, then at 12 months and finally once every year. This test allows you to count the HIV viruses still circulating in your blood.

- ➢ If the ARV treatment has been taken well and works, after six months of treatment, the viral load is **undetectable,** which means that the amount of HIV virus circulating in your blood is too low to be detected by viral load testing machines. **But that does not mean that you are cured of HIV infection.**

- ➢ If after six months of ARV treatment, the viral load is **detectable,** This means that either you are not taking the drugs well or the drugs you are taking are not effective in stopping the multiplication of HIV viruses.

- ➢ In many cases, a detectable viral load is the result of improperly taking ARV drugs, either a repetitive skipping of doses by forgetting or a non-compliance with the dose of drugs especially for children or simply a non-compliance other drug-taking conditions as explained by the provider when initiating ARV treatment, such as alcoholism and excessive drug use.

- ➢ Now that you know the importance of taking the viral load test, do you agree to do it when you have completed 6 months of ARV treatment? If so, set the appointment and mark the date in his file and in his notebook or other medium according to his choice.

If, on the contrary, he remains hesitant, repeat the session until you obtain his acceptance.

- ***Summarize this third session in the patient's file and in the adherence monitoring form and update the objectives and the adherence plan if necessary; Accompany the patient to the pharmacy and introduce him to the pharmacy provider who is responsible for dispensing ARVs;***
- ***Give the ARV drugs and mark the times of intake on the boxes;***
- ***Give him the date of the next appointment in a month and mark this date in his health book or other media of his choice.***

NB In principle, at the end of these three sessions, all the essential content of therapeutic education has been given. It remains to monitor the implementation of the adherence plan as agreed with the patient and to remind at each visit the next date of sampling for the viral load.

V.3. Additional specific steps according to certain target groups

Under certain conditions, additional steps can be added.

V.3.1. PMTCT-specific information.

Some steps are necessary for pregnant or breastfeeding women to put a plan in place:

- For childbirth in a health center;
- For future baby breastfeeding options;
- For the provision of ARVs to the newborn for prophylaxis;
- For the PCR test at 4 to 6 weeks after birth; at 9 months and serology at 18 months according to the national protocol.

V.3.2. Child-specific information.

For older children over 12 who know their HIV status, the above steps can be taken as such or slightly adapted.

On the other hand, for children under 12, their therapeutic education must be facilitated by blood parents or guardians.

- ✓ For children whose serology has not yet been announced, they do not participate not at the session, the session will be given to parents or guardians alone and must also contain strategies for announcing serology.
- ✓ Remember that the goal of ARV treatment in children is to quickly obtain a viral load of less than 50 copies / ml of blood.
- ✓ Explain the importance of respecting the immunization schedule;
- ✓ Explain and re-explain the obligation to regularly adjust the dosage of ARVs according to the age and weight of the child.
- ✓ Study together with parents / guardians the possibilities of combining the follow-up visits with those of the vaccination schedule.

V.3.3. Common information on chronic diseases.

Since ARV treatment is lifelong, providers should add the following additional information:

- ❖ Adoption of healthy eating habits;
- ❖ The importance of regular physical exercise;
- ❖ The importance of avoiding smoking, alcohol and other narcotics;
- ❖ Mechanisms for managing periods of stress.

VI. ORGANIZATION OF THE PROVISION OF CARE AND SUPPORT SERVICES FOR PLWHIV

VI.1. Introduction

The organization of the service offer is an important element in providing better quality care. A better organization of services must take into account the following elements:

- ✓ The capacity of the health system to offer quality care;
- ✓ The motivation of providers to offer care according to standards and procedures national;
- ✓ The ability of patients to use available services;
- ✓ The community sensitized to establish a continuum of structured care.

As part of the offer of HIV services, the organization of the care offer for PLWHIV must allow providers to better manage patients in the active queue, taking into account the real needs of each patient. However, today, with effective ARV treatment, the face of HIV infection resembles that of chronic disease; the organization of care must then be based on the management of the active queue which is growing over time and in which many patients are in good health but must continue on ARV treatment for life. A good organization of services allows:

- ➢ Providers to provide real-time care to those who need it most; To reduce the avoidable overload
- ➢ of health care providers and FOSA;
- ➢ To facilitate PLWHIV on ARV treatment to continue to be actors in their socio-economic development by avoiding unprofitable visits to monitoring sites.

From this in fact, the national guidelines implementation plan provides the guidelines organizational at each level of the health system.

VI.2. At community level

- ✓ Community networks (GASC) are formed around health facilities (FOSA). A FOSA can have several GASCs around it. Each GASC has at least one community leader who is the focal point with an interface role between his GASC and the FOSA.

- ✓ The GASCs are called upon for targeted screening, indexed screening, adherence / retention to ARV treatment, reminder of follow-up appointments, search for dropouts and cases of missing persons.
- ✓ The providers, depending on the case, refer patients to the community / GASC. The members of the GASC can also refer them to the FOSA. The leader of each support group and focal point acts as a link between the two community and clinical service points.

✓ The creation of community support groups and points of distribution of antiretrovirals

✓ Distribution of self-test kits

✓ Interconnection between community networks in the Responsibility for a FOSA is carried out by community leaders in collaboration with FOSA officials. Once a month, these managers and leaders meet in a coordination, evaluation and planning meeting for the following month;

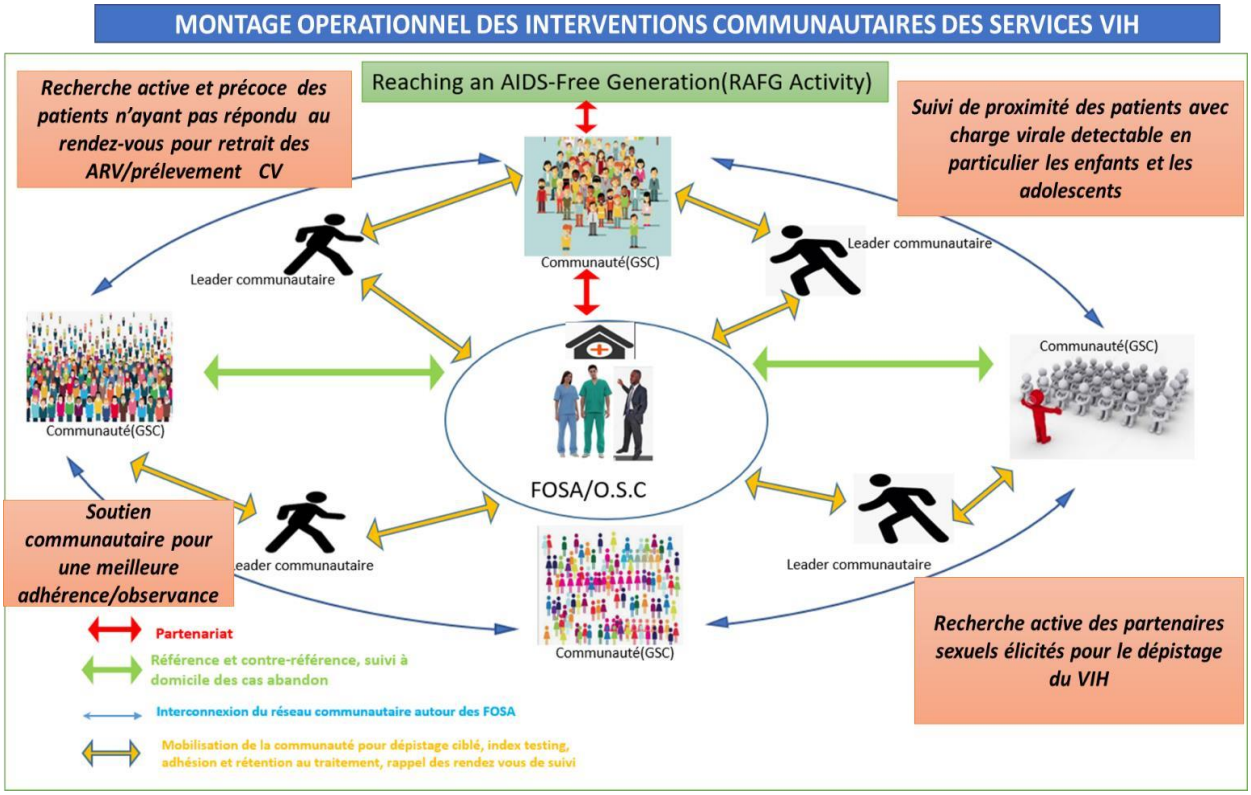
✓ Each FOSA appoints one or two people who supervise the Leaders GASCs and centralize reports on community activities;

✓ Referral to FOSA level if necessary;

✓ Reporting to FOSA on PODI activities and other activities;

✓ Depending on the availability of resources, a quarterly sharing meeting of good practices will be organized by district.

The following diagram is an example of a conceptual framework for strengthening the health system to improve the continuum of care for PLHIV.



Source: *USAID Reaching an AIDS-Free Generation "RAFG Activity" project.*

VI.3. At the level of care sites and FOSA

The following interventions must be carried out:

✓ Categorization of patients in the active queue according to their seniority
ARV treatment, the effectiveness of the treatment and the clinical condition of the patient.

✓ The strengthening of the differentiated model of the health care offer for PLWHIV by
according to each category of patients in the active queue.

✓ The generalization of the appointment system and the granting of prescriptions and
monthly or multi-monthly dispensations depending on the category to which each patient belongs.
Strengthening mediation in health to limit those lost to follow-up;

✓ Strengthening the continuum of care and the link between health facilities and
community through the establishment of community networks for the support of PLWHIV,
adherence and retention in care as well as the increase in demand for viral load testing;

✓ Strengthening the integration of HIV services with other HIV services
health in particular:

- ❖ Integration of HIV services into Maternal Neonatal and Child Health Services "MNCH" and vice versa, in particular to intensify HIV testing in children and strengthening of MTCT.

- ❖ Integration of HIV services into Tuberculosis services and vice versa including chemoprophylaxis at INH or **INH / Rifapentin**
in PLHIV screened negative for TB.
- ❖ The integration of HIV services into Reproductive Health services and vice versa, in particular the search for pregnancy and contraception in female PLHIV receiving the ARV combination containing DTG.

- ❖ Integration of HIV services into STI care services and vice versa.

- ❖ The integration of HIV services into hospitalization services, in particular the use of the assessment tool to guide HIV testing in children, adolescents and adults in hospital.

VI.4. At the level of BPS and Health Districts

➢ Strengthening the transfer of skills and delegation of tasks through the organization of on-site learning sessions, the development of
standards and standard operating procedures for each type of HIV service according to the gaps identified in the stages of the process of offering HIV services;

➢ Strengthening the decentralization of the ARV treatment offer in children and adolescents.

- ➢ Strengthening supervision and coaching to site providers using the same national reference framework made available by the PNLS / IST and its implementing partners.

- ➢ Regular identification of training needs dictated by changes in national protocols or guidelines or the specific and contextual needs of providers in a few sites. A form that will serve as a support for this identification will be provided by the PNLS / IST

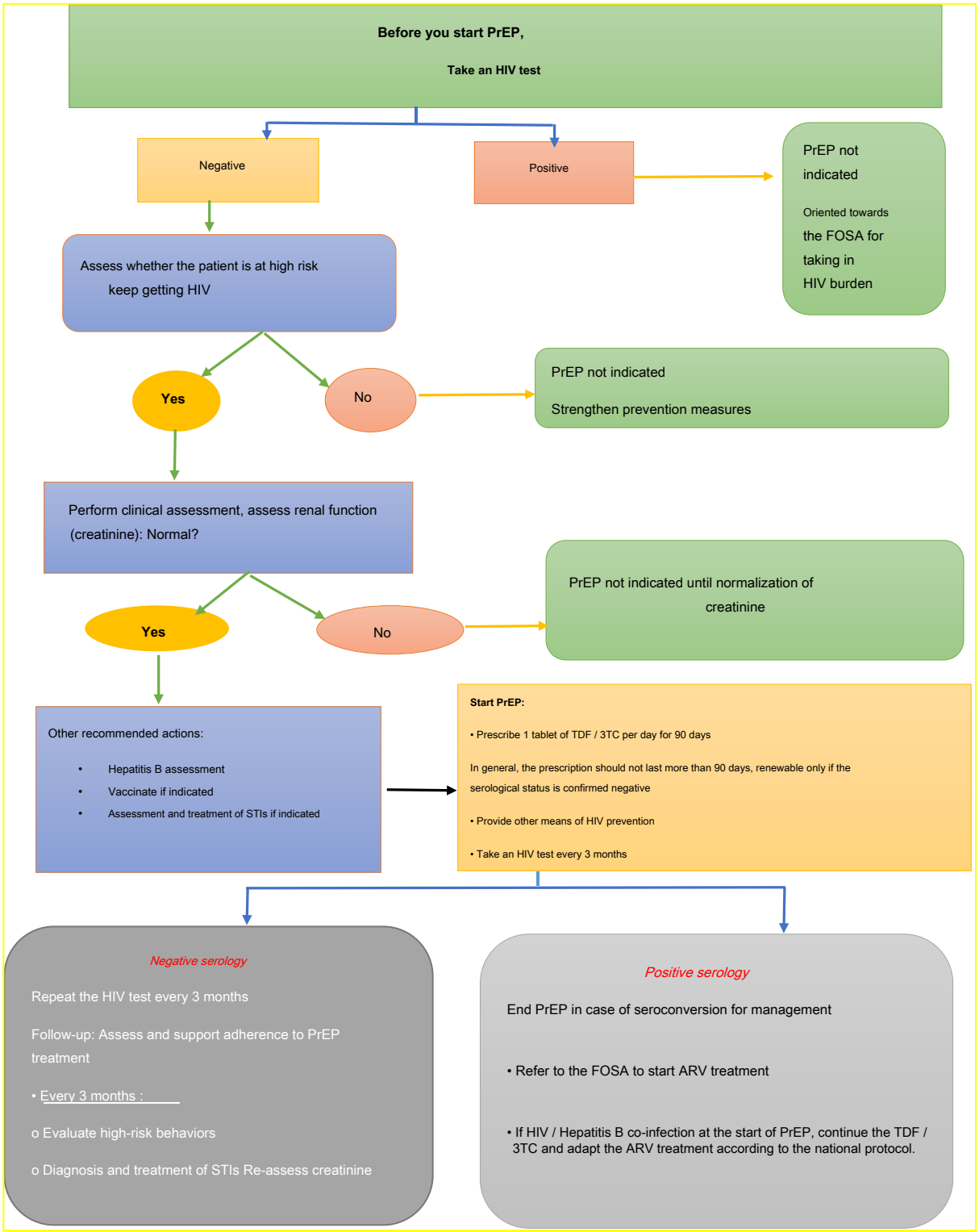
VI.5. At the central level

The establishment of a pharmacovigilance system including active notification of side effects or adverse effects of ARV drugs, active documentation of patients with detectable CV in order to rule on the pharmaco-resistance of HIV to the molecules constituting the national treatment plan ARV.

- ✓ Strengthening the supervision of ARV prescriptions through the implementation of place of a system to monitor the compliance of providers with respect to the prescriptions of first-line ARVs and the switch to **TLD.** This system will also make it possible to provide close supervision for the transition to second and third line combinations.

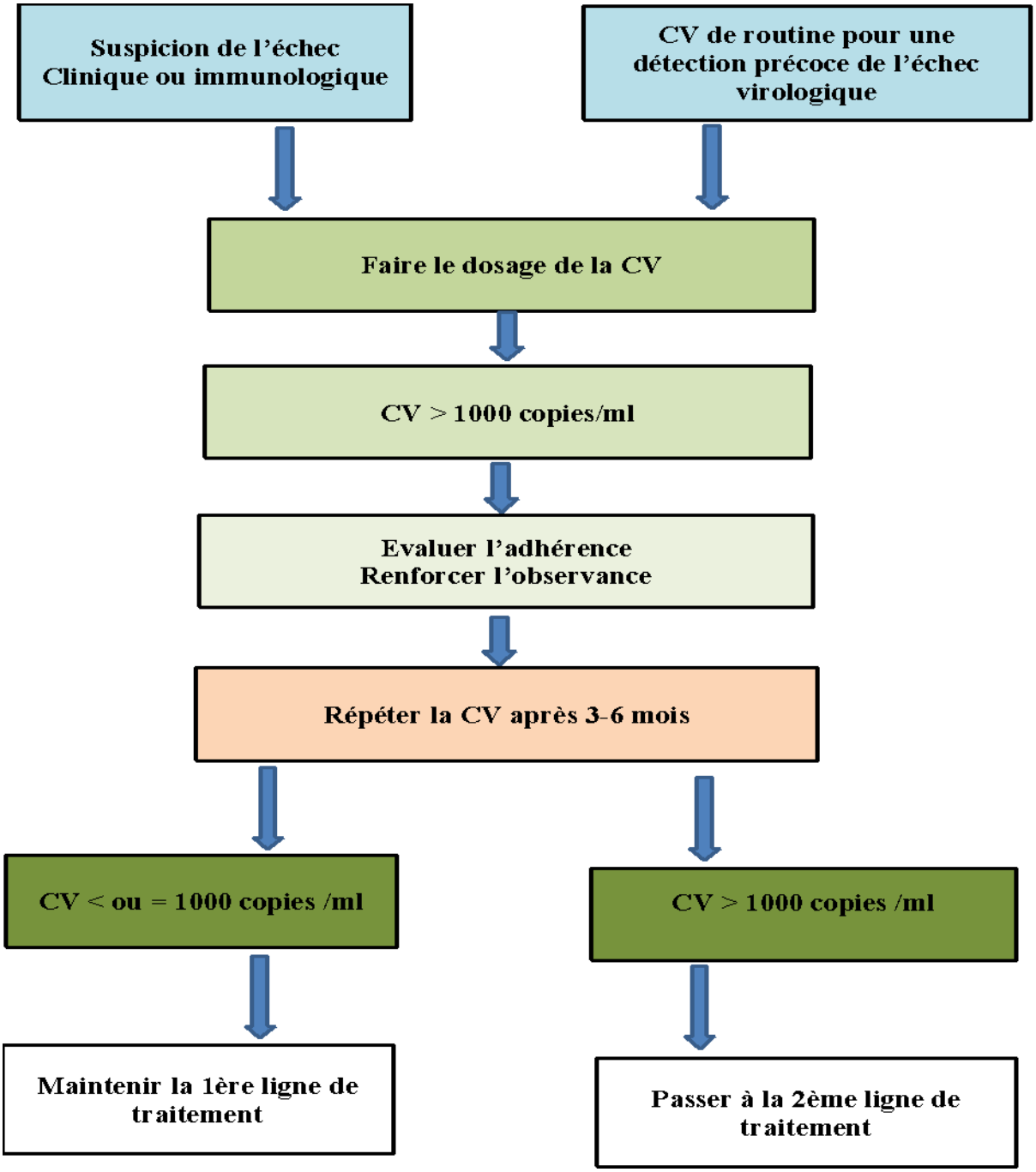
APPENDICES

APPENDIX 1: ALGORITHM OF PrEP



Source: *Center for Disease Control and Prevention (2016). Pre-exposure Prophylaxis for the Prevention of HIV Infection in the United States: A Clinical Practice Guideline, May 05, 2016 (Adapted).*

APPENDIX 2: CAT BEFORE AN INCREASED VIRAL LOAD



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