Logo MINSA Panama Logo PAHO/WHO

Draft guidance for the implementation of pre-exposure prophylaxis (PrEP) in Panama

Year 2020

Index

Abbreviations

CLAM	Friendly Clinic
HSH	Man who has sex with another man
ITS	Sexually transmitted infection
MINSA	Ministry of Health
WHO	World Health Organization
PrEP	Profilaxis preexposición
PrEP-AD	Pre-exposure prophylaxis on demand
TDF/FTC	Tenofovir/emtricitabina
TSF	Female sex worker
VIH	Human immunodeficiency virus

Introduction

This guide describes the essential recommendations for the implementation of pre-exposure prophylaxis(PrEP)in Panama, based mainly on the scientific evidence presented by the World Health Organization in its tools for the implementation of PrEP,as well as in consultations conducted through acceptability and feasibility surveys conducted with the target population and HIV service providers in the country.

The HIV epidemic requires the incorporation of new prevention strategies that can be combined in order to achieve control of the epidemic with the reduction of new cases, end mortality due to HIV and meet the 95-95-95 goals by 2030 to which Panama committed to achieve.

PrEP is a prevention strategy to prevent the acquisition of the Human Immunodeficiency Virus (HIV) and has widely demonstrated its efficacy and safety mainly in populations at significant risk of contracting the virus.

The guide details in the first instance the background that frames the experience at a global level on the use of PrEP,the current situation of the epidemic in Panama, a diagnosis on the acceptability and feasibility of the strategy and the development of the implementation with their respective monitoring and evaluation indicators.

1. Background

Pre-exposure prophylaxis(PrEP)is a primary prevention strategy that the World Health Organization (WHO) recommends administering orally to people who are at significant risk of contracting human immunodeficiency virus (HIV)infection. This recommendation was published in September 2015 by this body as part of the combined prevention strategies and is based on the use of specific antiretroviral drugs to prevent new HIV-associatedinfections. (1)

This recommendation is based on a number of studies that have extensively demonstrated the efficacy and safety of these drugs to highly exposed individuals to reduce the risk of transmission with minimal association with adverse events.

Among the most important studies is the iPrEX clinical trial that was published in 2010 and included a sample of 2499 men who had sex with men (MSM) with HIV-negative status and high-risk sexual behaviors. They underwent a single-blind randomization and the experimental group was given the combination of tenofovir/emtricitabine orally daily, following it for about 1.2 years. At the end of the study, there were 36 new infections in the experimental group in contrast to 64 in the control group, which meant a relative reduction in the risk of HIV infection of 44% (95% CI, 15 to 63%; p=0.005). The efficacy of this prophylaxis was associated with adherence to treatment, with a reduction in the risk of infection of up to 92% (95% CI, 40 to 99; p<0.001) in those with good adherence related to detectable levels of drugs. (2)

Another randomized clinical trial was the IPERGAY that was conducted in France and Canada with the participation of 400 MSM with high-risk sexual behaviors where PrEP was used at the disposal of the TDF/FTC combination taken before and after unprotected sexual intercourse, demonstrating the reduction of HIV transmission by 86% (95% CI 40-98; p= 0.002) . At the end of the study, two HIV infections were recorded in the treatment group and in both cases it was related to a discontinuation of PrEP. (3)

The same IPERGAY study was extended to a subgroup of MSM who had less sexual activity than the original group demonstrating a 100% reduction in new infections in the treatment group. (95% CI 20-100; p= 0.001). It was further demonstrated by doing an analysis of the original unmasked group of the research subjects that when the participant knows that he is taking the drug instead of placebo, adherence is improved. (4)

Another study called Prevent, which is being conducted in France, included the follow-up of daily and on-demand PrEP schemes in volunteers at high risk of contracting HIV and to date two cases of new HIV infections have been preliminarily reported in the group in participants who discontinued treatment for several weeks. (1)

The PROUD study was another clinical trial with high-risk HIV-negative MSM where participants knew which group they belonged to. In the group of subjects assigned to receive PrEP, 3 individuals contracted HIV, which meant a reduction of 86% (90% CI 64-96%; p= 0.0001). (5)

On the other hand, the Partners-PrEP study was conducted with 4547 heterosexual serodiscordant couples in two African countries and was randomized into three groups receiving TDF alone, TDF/FTC or placebo. The placebo group was discontinued early during the study. After 36 months of follow-up, a decrease in the risk of HIV infection was established by 67% (95% CI, 44-81%; p<0.001) in the TDF group alone and by 75% (95%CI, 55-87%, p<0.001) in the combined TDF/FTC group. (6)

According to the U.S. Centers for Disease Control and Prevention (CDC), it states that according to studies PrEP reduces the risk of contracting HIV in about 99% of people when taken daily.

Countries worldwide that have adopted PrEP recommendations within their regulations offer it as an additional alternative in their prevention package and agree not to promote it as the only prevention option. On the contrary, it is advisable to accompany it with strategies already known as condom use, HIV counseling, timely diagnosis and early treatment of people diagnosed.

In addition, like WHO, countries that have adopted PrEP recommend offering it to people at significant risk of HIV infection accompanied by a program that allows the identification of candidates, follow-up, counseling and monitoring of the safety and effectiveness of the intervention.

Panama, within its strategies for the prevention and control of HIV, has established adopting the goals by 2030 to end the epidemic. Of course, to meet this objective, it is necessary to expand the offer of preventive services, especially in key populations that according to epidemiological data correspond to transgender women and men who have sex with other men.

2. Current situation

The HIV epidemic in Panama as in the rest of the world is a Public Healthproblem, which according to estimates made by UNAIDS is 26000 people (CI95% 24000-29000) for 2018. The HIV situation is especially relevant in groups where the epidemic is concentrated, such as transgender women who have prevalence data of 29.6%, in men who have sex with men 12.2%and in female sex workers of 4.6% according to data fromUNAIDS for 2017. While the prevalence rate in the general population does not reach 1%, which demonstrates with evidence the need to direct prevention efforts to these populations. (7)

According to information from the Department of Epidemiology of the Ministry of Health, in 2019, 1912 new cases were diagnosed, of which 80% correspond to the male sex and 83% of these new cases are located in the productive population in age groups between 20 and 49 years. According to data from this same source, in 2019 there were about 19937 cumulative cases of HIV/AIDS and 79% of them are currently receiving antiretroviral treatment. However, only 22% of people on treatment have suppressed viral loads, indicating a higher risk of HIV transmission from the unsuppressed group to the HIV-free population. (8)

According to the key populationsize estimation report conducted in 2018, the MSM population nationwide was calculated at 49966 representing 3.7% of the projected population of men between the ages of 18 and for 2020 according to population projections in Panama. In the case of transwomen, the population projection was 3100 and 8326 women sex workers. (9)

In the same study, the key population was characterized according to variables such as educational level and monthly economic income. In the case of MSM, it was observed that 30.3% had completed secondary education, while for trans women that percentage was 29.4% and 38.0% in the case of female sex workers. Monthly incomes in the three key population groups predominated at less than 800 balboas per month.

3. Diagnosis

Panama has prevention services aimed at the key population such as the Friendly Clinics that provide comprehensive care since 2012 in a network of 6 clinics located in different facilities nationwide. This program offers HIV testing after counseling and establishes other preventive interventions aimed at key populations. Positive users are linked to antiretroviral therapy (ART) clinics for treatment initiation and corresponding follow-up.

The country has adopted free testing to improve access to it in all public health facilities nationwide. In addition, it has promoted access to free testing in civil society organizations related to the promotion of the rights of sexual diversity groups and others focused on HIV prevention.

The HIV diagnostic algorithm is up-to-date and based on the WHO recommendation to perform two rapid tests, which favors obtaining results in a timely manner and with optimization of resources for testing.
Early diagnosis options in the country are accompanied by timely treatment. In this sense, the country has adopted since 2016 in its treatment standards the WHO recommendation of rapid onset regardless of the CD4 values of diagnosed users. Access to treatment is free and is provided in 20 public health facilities nationwide.

The recent offer of integrase inhibitors within the treatment schemes for new users and the transition of existing users to these schemes represents an important advance to ensure viral suppression efficiently and reducing side effects that favor therapeutic adherence and minimize resistance.

However, despite these significant advances in secondary prevention, it is important to combine them with other strategies that have proven scientific evidence globally to reduce HIV transmission and bring the epidemic under control by 2030.

In this sense, to investigate the acceptability of PrEP implementation in Panama, a survey was conducted aimed at key populations with the aim of knowing aspects related to this intervention. For two weeks, a virtual survey was applied through Google Form and the link of the survey was disseminated among key populations and through applications frequently used by this population to meet people.

41.9%(95% CI 32.2-51.6)ofrespondents consider that at the time of having sex they have faced a risk assessed as low to contract HIV, while 24.2% (95% CI) classified their risk as high or very high. 44.4%. In the same vein, 35.5% of respondents (95%CI 26.1-44.9)said they always use acondom and 41.9% said that most of the time consistently most of the time they have sex. This indicates that three-quarters of respondents have fairly consistent condom use in their sexual intercourse.

45.2% (95% CI 35.4-55.0) reported having sex only once a month,but there is an important group that in proportionrepresents 27.4% who have sex between 1 to 3 times a week. This question is important because it can determine the right PrEP dosing schedule for the population. Half of the surveyed population has never had sex under the influence of alcohol or any drug, however, the other half has done so on some occasions.

48,4%ofrespondents (95% CI 38.6-58.2)reported beingtested for HIV annually, however, 9.7% (95% CI 3.9-15.5) of them have never been tested.

93,5%(5% CI88.7-98.3)of respondents would be interested in taking an oral medication to prevent HIV if offered. Regarding the frequency of administration of the prophylactic drug, there are divided opinions, since 53.3%(95% CI 43.5-63.1)consider takingit when they are going to havesex, while 46.7% (95%CI 36.9-56.5) of respondents would prefer totake it daily.

6 1.3%(95% CI 51.8-70.8)would even be willing to paymonthly between 1 to 50 US dollars to get medicine for pre-exposure prophylaxis, however, it is important to consider thata 24,2%(95% CI 15.8-32.6)would have no money or would not be willing to payanything for the drug, even though it would be interested in taking it.

Regarding services for the provision of pre-exposureprophylaxis,respondents stated by 33.9%(95% CI 24.6-43.2)that they would prefer to receive thedrug, test counseling, guidance on prophylaxis and withdrawal of medication in a friendly services clinic, while a similar percentage 35.5%(95% CI 26.1-44.9) would be willing to go monthly for PrEPfollow-up.

An important aspect of the survey is that 71%(95% CI) of respondents said they would maintain condom use at the time of sex,25.8% (95% CI 17.2-34.4) sometimes and only 3.2% would not use a condom if they are taking PrEP. If we compare these percentages with those obtained in the question on condom use, it is observed that there is no difference between those who do not use a condom prior to the use of PrEP and the intention not to use it if they received PrEP.

The 4.4% of respondents who indicated that they were not interested in taking prophylactic medication to prevent HIV were also asked and stated among the main reasons for not accepting PrEP that the drug does not protect against other sexually transmitted infections, fear of the side effects of the drug and the lack of economic resources to obtain it.

In addition, a survey of HIV service providers at all levels and sectors was conducted. Below, the main findings found through the survey aimed at people working in HIV are summarized in a quantitative-qualitativeway. There was participation of 23 people.

78.3% describe PrEP as a highly effective strategy so it should be offered to key populations and serodiscordant couples in the country. 65.2% suggest that PrEP should be offered under free demand schemes. On the other hand, they consider that if PrEP is adopted in the country, the populations that should be prioritized are MSM, trans and serodiscordant couples in 87%. 30.4% also included female sex workers.

79.2% of respondents agreed that Friendly Clinics (CLAM) are the right sites for the realization of the offer, orientation and follow-up of PrEPusers. In addition, 50% considered that PrEP should be prescribed by prescription through a general practitioner who would also make the offer and follow up.

Likewise, 58.3% of respondents agree that HIV testing should be performed every 3 months in a PrEPfollow-upprogram, while follow-up by health professionals should be done on a quarterly frequency according to 37.5% of respondents. They were asked about which health professionals should make up the minimum team that offers and monitors PrEP and 100% agreed that a doctor, followed by 95.8% that

a nursing staff, 87.5% a promoter or counselor, 75% a pharmacist, 45.8% a medical technologist, 70.8% a psychologist and 54.2% a social worker.

66.7% of respondents state that PrEP should be purchased by the user at a low cost within public health services. In addition, 58.3% of respondents considered that the decisive criterion for implementing PrEP in Panama should be the demonstrated cost-effectiveness of the strategy in reducing new infections.

Finally, an open question was asked about what would be the advantages and challenges that the implementation of PrEP according to their experience in working on HIV would have. The following table summarizes the most common among respondents:

Table No. 1
Summary of Advantages and Challenges of PrEP Implementation by HIV Service Providers

Advantages	Challenges
• Decreased incidence of HIV • Long-term cost benefit to the health system • Reduced transmission • Benefit for serodiscordant couples who may have this possibility of prevention • Strengthening the combined prevention strategy • Reduced exposure to the virus if the person has sex with positive sexual contact • Impact on costs for prevention • Indirectly it would increase the uptake of new diagnoses, since the PrEP user must be tested for HIV prior to its onset.	• Acceptance to the population • Educate decision makers and healthcare providers first in strategy • Reduce discrimination in PrEP users • Create user awareness of the responsibility of being on PrEP • Higher incidence of other STIs • Cost of the drug and sustained availability • Incorporation into the basic table of medicines • PrEP Sourcing • Stigma associated with PrEP • State Budget for PrEP Purchase • Health provider disinterest in implementing new strategies

Fountain. PrEPAN Survey, 2020

4. Justification

HIV prevention strategies in Panama require the implementation of a combined package of interventions aimed at key populations of proven effectiveness with constant monitoring through the use of monitoring indicators and measurement of impact in the short, medium and long term.

Within the recommendations established by the 2017 HIV Prevention under the Microscope report, the need to expand the package of prevention strategies that included PrEP to key populations was raised.

The incorporation of new strategies is also based on the need to develop initiatives that allow a rapid control of the HIV epidemic in the country, since Panama has committed to the goals of 95-95-95 to end this Public Health problem in 2030.

It is essential that the country has strategic information that allows identifying from the different components of the provision of services (suppliers and users) key elements for making the best decisions regarding the offer of prevention services contextualized to the country that can be articulated with other existing prevention strategies.

These analyses should also be done with a focus on technical and financial sustainability for the country with government resources, especially in a scenario of decreased external resources for HIV prevention, treatment and control activities in Panama.

5. Objective

- Develop the implementation guide of the pre-exposure prophylaxis strategy(PrEP)in Panama

6. Targetoblation

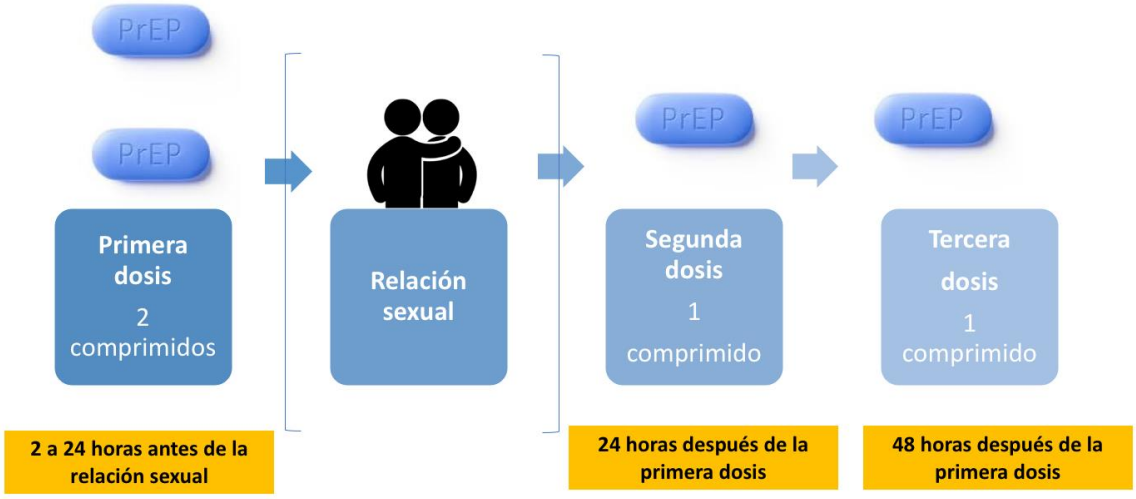
WHO recommends targeting prep supply to populations at significant risk of contracting HIV and therefore having a high enough incidence of HIV infection (greater than 3%) for the PrEP supply to be cost-effective.
In that sense, the population that meets the criterion in the country would be:

- Trans women:person who identifies as a transgender or transsexual woman
- Men who have sex with othermen: A person who self-identifies as a man and who performs sexual practice with another man.
- Female sexworkers: a woman who identifies sexual practice as a source of income.

In addition, the PrEP offer could include HIV-negative people who are part of a serodiscordantcouple. It is defined as a couple where one of its members has a confirmed diagnosis of HIV and the other member does not have HIV.

7. Implementation Recommendation

The recommendation for pre-exposure prophylaxis for the country is PrEP on demand(PrEP-AD)which consists of taking a dose of two tablets of Tenofovir (300 mg)/Emtricitabine (200mg) (TDF/3TC) between 2 to 24 hours before sexual intercourse, a second dose of one tablet 24 hours after the first dose and a third dose of one tablet at 48 hours after the first dose. The PrEP-ADschemais summarized in the following schema:



However, it is important to assess each user's individual risk for HIV. In those who have sex more often than twice a week and who cannot predict or postpone this activity may receive a daily Schedule of PreP that consists of taking one tablet of TDF/FTC every day.

Similarly, the WHO explains that as the sexual activity of people is dynamic, prEP-ADuserscan migrate to a daily schedule in periods in which sexual intercourse is more frequent than twice a week, maintaining the intake of 1 tablet daily. They can also migrate from the daily scheme to PrEP-ADiftheir frequency of sexual activity drops.

7.1. **Selection** criteria **for offering PrEP**

The recommended criteria for offering PrEP are:

- Of legal age defined in the Republic of Panama as over or equal to 18 years of age
- Person belonging to key population (MSM, trans women and female sex workers)
- Person with a serodiscordant sexual partner belonging or not to a key population and whose positive partner has not entered antiretroviral therapy or has not achieved viral suppression while in treatment
- Have a serological HIV test confirmed as negative according to the approved HIV diagnostic algorithm in the country on the same day that PrEP is offered and started
- Performing a serum creatinine test
- Absence of signs or symptoms that suspect acute HIV infection
- People with contraindications to receiving the drugs contained in the PrEP scheme as people with kidney disease.
- Signing of voluntary PrEP consent and acceptance of follow-up commitments

7.2. Initial consultation in PrEP services

PrEP services in both initial and follow-up consultation will be carried out in the Friendly Clinics (CLAM) located in health centers established nationwide. The minimum multidisciplinary team to offer PrEP services will be made up of a doctor, nurse, medical technologist and pharmacist. The team will also be able to complement each other with promoters/counselors, psychologists, social workers, among others for a more comprehensive approach.

The initial consultation of PrEP services aimsto meet the following objectives:

- Publicize the Prevention Strategy Based on PrEP
- Obtain the user's voluntary consent for inclusion in PrEP service
- Perform clinical evaluation of the user and verify the selection criteria to receive PrEP
- PrEP Medication Delivery and Scheme Counseling
- Establish agreements and follow-up plan

The following table sets out in detail the minimum elements that are expected to be met in this initial consultation to achieve the objectives:

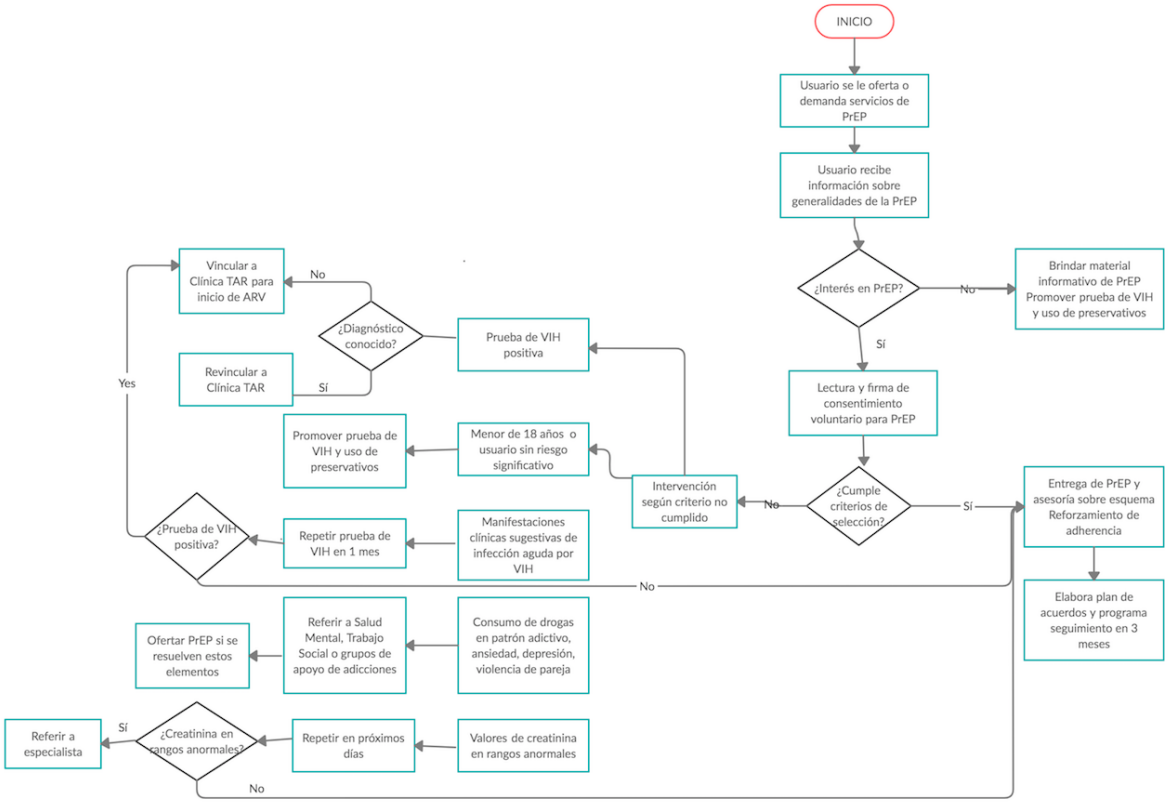
Table No.2
Objectives and activities of the initial PrEP consultation

	Objective	Activities
1	Publicize the Prevention Strategy Based on PrEP This goal can be performed by the doctor, nurse promoter/counselor	• Explanation of the generalities of PrEP with the use of support material that is easy to understand by the user. This activity must have at least an approach to the following aspects: ○ *What is PrEP?* ○ *Who are the groups where PrEP is recommended?* ○ *What is the effectiveness of PrEP?* ○ *What are the recommended PrEP schemes?* ○ *What is tracking a PrEP user like?* ○ *What are the possible risks of the PrEP user?* ○ *Where can the user have more information about PrEP?* • Resolve doubts that the user has about PrEP • If the user is interested in starting PrEP move to the second objective, if he is not sure he can be given physical and digital information material for further guidance and leave open the possibility of consulting again. • Approach for users not interested in PrEP should culminate in HIV testing and strengthening condom use
2	Obtain the user's voluntary consent for inclusion in PrEP services This goal can be performed by doctor, nurse, promoter/counselor	• Reading of voluntary consent to inclusion in PrEP services (see model in Annexes) • The PrEP service provider must be present at all times to clarify any doubts that arise in the user on the subject • Signature of voluntary consent to inclusion in PrEP services by the user
3	Perform clinical evaluation of the user andverify the selection criteria to receive PrEP This objective can be performed by doctor in conjunction with nurse and promoter/counselor Laboratory tests should be performed by a medical technologist.	• Request personal identification to verify age • Verify membership in the key population. If the person does not identify as such, the significant risk of contracting HIV should be assessed with open-ended questions that explore their sexual behaviors in the past 6 months: ○ *Have you had sex with more than one person?* ○ *Have you had sex in which you have not used a condom?* ○ *Have you had sex with people you know who are infected with HIV?* ○ *Have you been diagnosed with any sexually transmitted infections?* ○ *Have you had sex under the influence of alcohol or any drugs?*

		○ *Have you received money in exchange for having sex?* ○ *Have you had sex without using condoms?* • Clinical evaluation in search of manifestations suggestive of acute HIV infection (fever, sweating, adenopathies, mouth ulcers, headaches, skinrashes, among others). The evaluation should also be directed to the search for clinical manifestations of STIs and offer treatment by symptomatic case of some. • Evaluate medical history that are contraindications to the use of PrEP (moderate to severe renal disease,drug allergies are rare). • Evaluate personal history that may interfere with adherence to PrEP (addictive drug use, depression, anxiety, intimate partner violence). Positive identification of any of these antecedents should be grounds for postponing the initiation of PrEP and referral to Mental Health, Social Work or drug rehabilitation groups. • Pre-HIVtesting according to national guidelines • Offer of tests for other sexually transmitted infections (syphilis, hepatitis B and C) • Blood sampling for rapid HIV test processing according to algorithm. Blood sampling should be used for the measurement of serum creatinine and available STI tests. Unavailability for testing for STIs other than HIV should not be a reason to delay the onset of PrEP. • Assessment of serum creatinine results and creatinine clearance. • Post-test counseling and decision making based on HIV test result • If the user is eligible for PrEP move on to the next goal
4	PrEP Medication Delivery and Counseling This objective will be carried out by the doctor and pharmacist	• The doctor will issue a PrEP prescription and explain the administration scheme to the user according to their needs reinforcing the importance of adherence. In addition, it explains the possible side effects and how to manage them. • It leaves open the possibility that if the side effects are intolerable you can consult before the next consultation. • Guides on the steps to follow if you forget to take the medicine or if you have any adverse reactions • The user withdraws medicine in Pharmacy
5	Establish agreements and follow-up plan	• Healthcare Provider Establishes User Agreements to Maintain PrEP Adherence

	This goal can be realized by the doctor,nurse,promoter/counselor	• Promotes and offers the use of condoms and lubricants in their sexual relations • Establish follow-up consultation in three months

Approach flowchart in initial consultation



The entire approach to the initial consultation will be documented in an initial PrEP consultation form that must rest in the user's physical or digital file.

7.3. Follow-up consultations by PrEP services

The follow-up consultation for PrEP users is recommended to be carried out in the Friendly Clinic on a quarterly basis (every 3 months) and should aim to:

- PrEP User Clinical Evaluation
- Verification of negative HIV test result
- Assess adherence and presentation of side effects
- Promote adherence and follow-up in the next three months

The following table details the activities that must be carried out in this consultation according to each objective set:

Table No. 2
Objectives and activities of follow-up consultations

	Objective	Activity
1	Clinical evaluation This activity should be performed by the doctor	• Medical history and physical examination aimed at identifying clinical findings suggestive of HIV infection, STIs and prEP adverse reactions
2	Verification of negative HIV test result This objective may be carried out by the doctor in conjunction with a nurse, promoter/counselor and medical technologist.	• Provide pre-test advice • HIV TestIng Consent Signature • Taking a blood sample. Blood sampling can be used for the detection of creatinine and other STIs if necessary. • Result review with prep user • Post-test counseling anddecision-making according to outcome (See follow-up consultation flowchart)
2	Assess adherence and presentation of side effects This objective may be performed by the doctor in conjunction with nurse, promoter /counselor	• Explore Adherenceto PrEP with open-ended questions and empathy. It is suggested to ask questions such as: o *Tell me if you have managed to take PrEP as we agreed in our previous consultation?* o *What have you done when you forgot to take PrEP?* o *What has cost you the most to remember taking PrEP?* o *Is there a situation that has occurred since the last time we spoke that prevents you from taking PrEP?* • Check the presentation of side effects through questions such as: o *Have you felt any symptoms in this time when you take PrEP?* o *Have these symptoms persisted over time?* o *Are these symptoms tolerable or are they very strong?* o *Have you thought about stopping PrEP because of these symptoms?* • Evaluate serum creatinine values and compare them with the above. In case of elevations of its concentration above 50% of its initial value and creatinine clearance less than 60ml/min suspend PrEP. Repeat creatinine at 3 months and

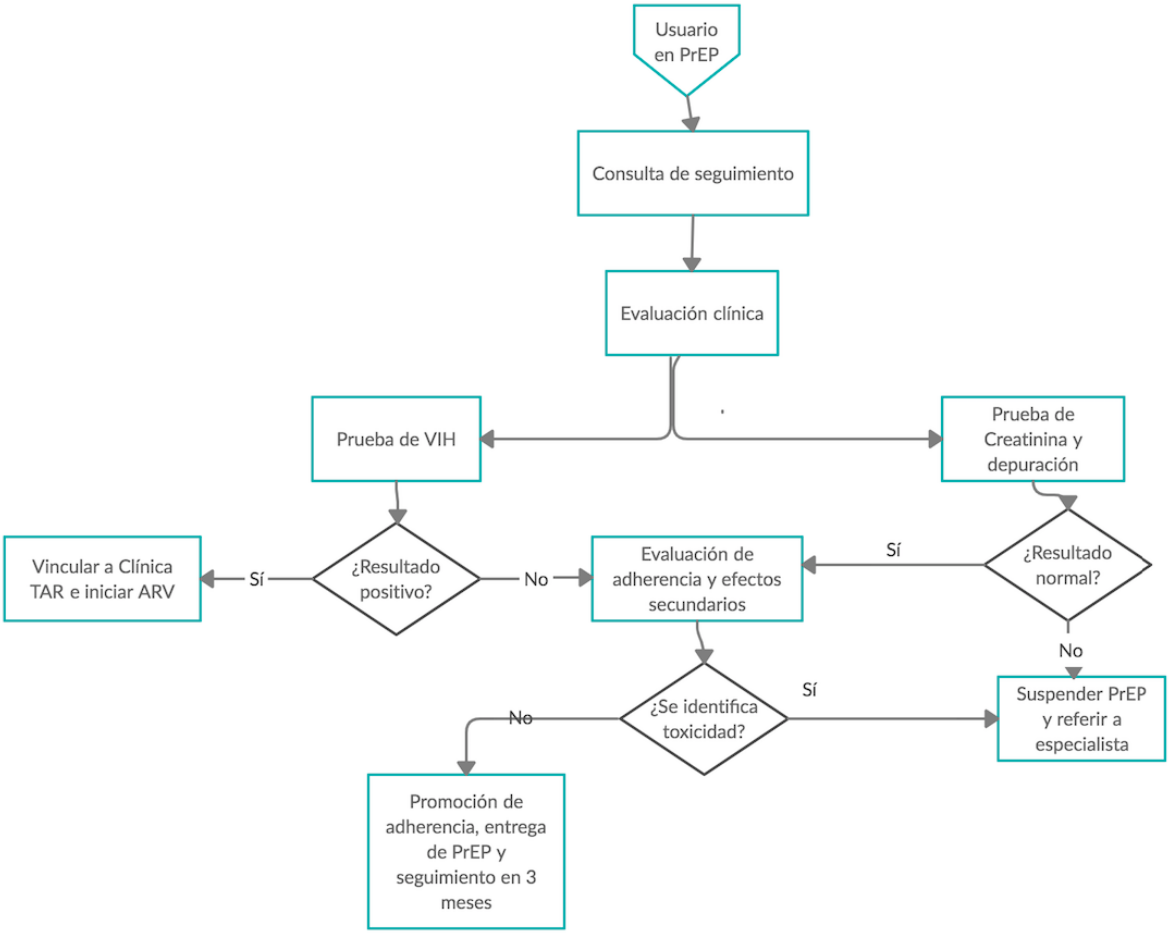
		consider resuming PrEP if values normalize. Creatinine elevations below this percentage are not significant and should be corroborated with a second test.
3	Adherencepromotion, PrEP delivery and follow-up in three months This objective may be carried out by the doctor in conjunction with a nurse, promoter/counselor and pharmacist.	• Develop with the PrEP user a plan to improve adherence and management of the barriers identified in the previous step • Strengthen the use of condoms in sexual relations • Ask the user aboutquestionsrelated to PrEP or any situation that conditions its correct use • Deliver PrEP prescription and drug withdrawal in Pharmacy • Give follow-up consultation in the next 3 months

Subsequent follow-up consultations should meet the same objectives and activities. Creatinine testing can be spaced to 6 months in users who do not have risk factors for kidney disease such as high blood pressure or diabetes mellitus. In individuals over the age of 50, monitoring is recommended more frequently.

Screening for other STIs is recommended to be performed according to clinical criteria and epidemiological factors. For example, HIV and syphilis co-infection in MSM is high, so syphilis screening could be done at each follow-up visit. WHO also recommends testing for hepatitis C at least once a year in the MSM population. The lack of testing for other STIs should not prevent prEP from prescribing or offering treatment in those that can be clinically diagnosed.

All follow-up consultation interventions must be recorded in the user file with PrEPmonitoringform.

Follow-up consultation ujogram



7.4. Follow-up of side effects, adverse reactions, discontinuation and failure of PrEP

PrEP regimens based on the TDF/FTC combination may have mainly mild side effects that develop during the first few weeks of drug initiation and disappear over time. The most common are upset stomach, headache, loss of appetite and nausea. The PrEP service provider should emphasize the possibility of these events and look for options to reduce these effects. In addition, you should advise the user on when to seek medical attention if these effects persist or are not tolerable.

However, in a much smaller percentage this combination can cause severe effects such as fever, chills, sore throat, cough, rash and skin rashes. Isolated cases of renal effects from these medications have been reported ranging from elevated serum creatinine levels (which usually disappear after discontinuation of PrEP)to cases of renalfailure. (10)

Other uncommon effects may be linked to the slight decrease in bone mineral density in daily PrEP users, but without risk of bone fractures.

As for the interactions of prep components with other drugs have been described mainly with other antiretrovirals, however, they do not represent a possibility of interaction for PrEPusers. The use of PrEP with female hormoneization schemes in trans has no interactions that produce a decrease in the effect of PrEP nor side effects. The PrEP service provider will need to identify a history of chronically used medications that may interact with the components of PreP.

At each follow-up visit, PrEP service providers need to assess PrEP adherence and document the reasons that affect adherence or disengagement from prophylaxis. The reasons that are identified must be addressed through an adherence improvement plan with short, medium and long-term goals whose progress must be followed up in each consultation.

PrEP failure is defined as people who take PrEP properly according to recommended schedules, but still get HIV infection while taking it. To define a situation as failure it is important to first identify that PrEP users have actually taken the drug properly and verify optimal levels of adherence to it. Studies establish that PrEP failures may be associated with infection with a drug-resistant virus mainly if they are strains of the virus with the K65R mutation.

It is necessary that each follow-up consultation evaluates the presentation of manifestations that suggest severe toxicity. Although studies have reported a very low prevalence of toxicity, there is not enough large-scale evidence in large-scale population groups. The occurrence of these toxicities should be a criterion for discontinuation of PrEP and refer the affected user to specialized care to manage the toxicity.

8. Promotion of PrEP in public health system and community-based agencies

The promotion of PrEP should be carried out from all instances that work in the promotion, prevention and management of people living with HIV both at the community and clinical level.

The PrEP program should be accompanied by ongoing training for all sectors working on HIV, so that these individuals can adequately target people at significant risk of contracting HIV who may be eligible for PrEP as those who are interested in receiving this prevention.

The Ministry of Health must ensure up-to-date and evidence-based information on PrEP based on key points such as the effectiveness of PrEP that is widely demonstrated, the safety of the drugs used and the risk of contracting HIV, the responsibility assumed by the PrEP user especially with adherence and its close monitoring and the absence of protection against other STIs and absence of contraceptive effect.

PrEP promotion should always be focused on a package of combined prevention strategies that include consistent condom use in sexual intercourse and regular HIV testing, especially in key populations. This promotion must be carried out within the framework of an

environment of zero stigma and discrimination that claM must guarantee due to its work dynamics and awareness of the provider that works in it.

Civil society organizations working on HIV prevention can play a leading role in educating their populations about PrEP and should be trained so that they can adequately guide and inform users involved. In addition, they can be agents of promotion and linking users to the Friendly Clinics to approach PrEPservices. They also play a fundamental role in reducing the stigma and discrimination that users who have an interest in this prevention strategy may have.

9. PrEP Monitoring and Evaluation Indicators

A PrEP program must include a minimum number of monitoring and evaluation indicators that allow systematic follow-up of the program and thus have evidence for the realization of improvement plans in order to improve the quality of the program. (11) Indicators should assess at least four critical aspects of the process:

- Acceptance (Indicators A.1, A.2)
- Continuity (indicators C.1, C.2)
- Safety (indicators S.1, S.2)

The following table summarizes the basic indicators and their data sheet:

Table NºX
Basic PrEP monitoring and monitoring indicators

Indicator	Numerator	Denominator	Frequency of reporting	Fountain
A.1 Number of people who received PrEP at least once in the past 12 months	Same of the indicator	Not applicable	Annual	Friendly Clinic
A.2 Percentage of people who meet the criteria for Receiving PrEP and who started prEP in the past 12 months	Number of people who started PrEP in the past 12 months	Number of people first offered PrEP	Annual	Friendly Clinics
C.1. Percentage of PrEP userswho continued to take it for three consecutive months after starting it in the last 12 months	Number of users who continued to take PrEP for three consecutive months after starting prEP in the last 12 months	Number of people who started PrEP in the past 12 months	Annual	Friendly Clinics
S.1 Percentage of people receiving PrEP and discontinued it due to severe drug-associated toxicity in the past 12 months	Number of people who received PrEP and discontinued or discontinued it due to severe drug-associated toxicity in the past 12 months	Number of people receiving PREP at least once in the past 12 months	Annual	Friendly Clinics
S.2 Percentage of people who test positive for HIV among people who received	Number of people who test positive for HIV among people	Number of people who received PrEP at least once	Annual	Friendly Clinics

PrEP at least once in the past 12 months and who had at least one follow-up VI test	who received PrEP at least once in the past 12 months and who had at least one follow-up VI test	in the past 12 months and who had an HIV test as a Minimum		

It is recommended that all indicators be segregated by basic variables such as sex, age group (15-19, 20-24, 25-49, over 50 years) and membership in key groups (MSM, trans,TSF).

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Annexes

PrEP Consent Form

You have been offered the pre-exposure prophylaxis strategy for the human immunodeficiency virus (HIV) commonly known as PrEP.
PrEP is a prevention strategy that, together with other strategies such as condom use in all sexual relations, has shown efficacy in reducing the risk of HIV transmission.

You have been identified as having a significant risk of contracting HIV, so PrEP can help you reduce this risk if handled in a proper way.

You should take PrEP as prescribed by your health care provider (daily or close to the date you will have sex) depending on how you plan your sexual activity.

To ensure the effectiveness of PrEP you commit to:

- Taking PrEP according to your health care provider's recommendation
- Use condoms in all sexual intercourse
- Go every 3 months to the Friendly Clinic for evaluation, HIV testing and other tests that will allow you to adequately monitor your health
- Warn of any unexpected or intolerable side effects you perceive

From the Friendly Clinic you will receive:

- PrEP Guidance and Information
- Confidentiality of its use
- Care by health team and laboratory testing
- Managing complications you may have from PrEP use
- Condoms and lubricants

It is important for you to know that PrEP is a safe strategy whose effectiveness and safety has been demonstrated by multiple studies. However, PrEP users may have mild side effects in the first few weeks of onset that disappear spontaneously. Among them are upset stomach, headache, loss of appetite and nausea.

However, in a much lower percentage PrEP can cause severe effects such as fever, chills, sore throat, cough and skin rashes. Isolated cases of renal effects from these medications have been reported ranging from elevated serum creatinine levels (which usually disappear after discontinuation of PrEP)to cases of renal failure.
Other uncommon effects may be linked to the slight decrease in bone mineral density in daily PrEP users, but without risk of bone fractures.

If you present any intolerable or serious manifestations you should report it immediately.

PrEPUsername:
_____
__
IDENTIFICATION:
_____
_
Company: ___
Date: _____

Provider offering PrEP:
_____
Position: _____
Company: _____