



# GUIDELINES FOR PRE-EXPOSURE PROPHYLAXIS (PREP) FOR HIV PREVENTION IN BARBADOS

HIV/ STI Programme, Ministry of Health, Government of Barbados

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# Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Clinic
ART	Antiretroviral Therapy
ARV	Antiretroviral (drug)
cART	Combination Antiretroviral Therapy
CDC	United States Centers for Disease Control and Prevention
CMO	Chief Medical Officer
ELISA	Enzyme-Linked Immunosorbent Assay
FTC	Emtricitabine
HBV	Hepatitis B
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and Counselling
LRU	Ladymeade Reference Unit
MOH	Ministry of Health
MSM	Men who have Sex with Men
PEP	Post Exposure Prophylaxis
PrEP	Pre-Exposure Prophylaxis
PLHIV	People Living with HIV
RPR	Rapid Plasma Reagin
STI	Sexually Transmitted Infection
TB	Tuberculosis
TDF	Tenofovir Disoproxil Fumarate
WHO	World Health Organization

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## Introduction

Oral pre-exposure prophylaxis (PrEP) of HIV infection is the use of antiretroviral (ARV) drugs by people who do not have HIV infection in order to prevent the acquisition of HIV. In 2014, the World Health Organization (WHO) recommended offering PrEP to men who have sex with men (MSM). On the basis of further evidence of the effectiveness and acceptability of PrEP in 2015, the WHO subsequently broadened the recommendation to include all population groups at substantial risk of HIV infection. It is now the policy of the Ministry of Health (MOH) that PrEP may be offered for any person deemed to be at substantial risk for HIV in Barbados.

PrEP should be an additional prevention choice in a comprehensive package of services that also includes HIV and STI testing, counselling for risk reduction and behavioural interventions, male and female condoms, lubricants, PEP, ARV treatment for partners with HIV infection, voluntary medical male circumcision and harm reduction interventions for people who use drugs.

## Key Evidence in support of PrEP

According to the WHO, there is high-quality evidence which strongly supports the use of PrEP by any person at substantial risk of acquiring HIV infection. There are twelve trials of the effectiveness of oral PrEP which have been conducted among serodiscordant couples, heterosexual men, women, MSM, people who inject drugs and transgender women. These trials took place in Africa, Asia, Europe, South America and the United States.<sup>1</sup>

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<sup>1</sup> WHO Expands Recommendation on Oral Pre-Exposure Prophylaxis of HIV Infection (PrEP) Policy Brief - WHO 2015

A systematic review and meta-analysis of the effectiveness of oral PrEP containing TDF for all people at substantial risk of HIV found that it is effective.<sup>2</sup> The level of protection did not differ by age, gender, ARV regimen [TDF versus emtricitabine (FTC) + TDF] or mode of acquiring HIV (rectal or penile/ vaginal). The level of protection was strongly correlated with adherence.

PrEP has an excellent safety profile. Across 10 randomized controlled trials, rates of any adverse event did not differ between PrEP and a placebo.

The risk of drug resistance is low, occurring in approximately 1 in 1000 PrEP users in clinical trials. Drug resistance occurred almost exclusively among people who already had acute undetected HIV infection when they started PrEP. Therefore, testing for HIV, assessment of recent HIV exposure and screening for acute HIV infection before people start PrEP are essential to avoid drug resistance. Moreover, offering PrEP reduces the number of new HIV infections, each of which would require lifelong therapy, with substantial ongoing risk of drug resistance. Thus, PrEP is expected to decrease the public health burden of HIV drug resistance.<sup>1</sup>

No evidence for risk compensation in sexual practices, such as decreased condom use or more sexual partners, has emerged in any PrEP studies or programmes. However, risk reduction/ management counselling and periodic screening of STI should be provided at every visit before and during use of PrEP.

PrEP can be used with hormonal contraception. Recommended PrEP regimens do not appear to alter the effectiveness of hormonal contraception.

PrEP can be used during pregnancy. No increase occurred in adverse pregnancy-related events among women taking PrEP in early pregnancy. This is important because

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<sup>2</sup> Fonner et al **Effectiveness and safety of oral HIV preexposure prophylaxis for all populations** AIDS 2016, 30:1973–1983

both mother and infant are more vulnerable to HIV acquisition during pregnancy and breastfeeding.

PrEP is regarded as being acceptable amongst the community. Various populations report that they find PrEP acceptable, and individuals have shown substantial interest in PrEP as an additional choice for HIV prevention.

Adherence can be maintained. Demonstration projects and experience in every-day settings are proving that people can adhere to daily oral PrEP.

## Considerations for the Implementation of PrEP

PrEP should not displace or compete with other effective and well-established HIV prevention interventions, such as comprehensive condom programming for sex workers and MSM and harm reduction for people who use drugs, but rather synergize for a greater HIV prevention effect with a combination approach. Many people who could benefit most from PrEP belong to key populations that may face legal and social barriers to accessing health services. This is a consideration for implementation of PrEP services.

## Key elements of PrEP services

The following are key elements of the PrEP services as recommended by the WHO:

1. **Offer PrEP as part of combination HIV prevention approaches.** Continued advocacy for and investment in effective combination HIV prevention services is essential.
2. **Involve communities and support an enabling environment.** The full participation of communities is critical to developing and implementing services. In many places

community-based organizations have taken the lead in limiting the spread of HIV infection. Countries should support these organizations to lead PrEP implementation and to provide accurate information about PrEP and create demand.

3. **Provide training.** Health-care providers should be trained and supported to provide culturally appropriate PrEP services to persons at substantial risk for HIV, especially people from key populations.
4. **Ensure HIV testing.** HIV testing is required before starting PrEP and regularly while taking PrEP. Using quality-assured HIV testing is important, and referral of people who test positive to HIV treatment and prevention services is essential.
5. **Monitor renal function.** Given the use of TDF-based PrEP regimens creatinine testing is desirable before starting PrEP, to detect contraindication at baseline, and quarterly during PrEP use for the first 12 months, then annually thereafter.
6. **Test for hepatitis B infection.** Hepatitis B (HBV) is endemic in much of the world where HIV prevalence is highest. Testing PrEP users for HBV surface antigen is desirable, with HBV vaccination for those who are uninfected. WHO recommends TDF or entecavir for treatment of liver disease due to HBV. If PrEP is stopped in such people, continuing an alternative therapy for HBV should be considered. In HBV carriers without indication for treatment of HBV, PrEP interruption should be carefully monitored because of risk of hepatitis flare.
7. **Encourage adherence for effectiveness.** Demonstration projects have shown that most people can use daily oral PrEP effectively. Effective PrEP use is different from adherence to HIV treatment in that PrEP can be started and stopped as a person moves through “seasons of risk”, whereas treatment is lifelong. Ways to increase PrEP adherence include informing people that PrEP is highly effective when taken and that PrEP is safe; the great majority of PrEP users have no side-effects. Support groups, including those using social media and communication technologies, may help with adherence by enabling PrEP users to share experience and challenges.



# Implementing PrEP in Barbados

The WHO recommends that “Oral PrEP containing tenofovir disoproxil fumarate (TDF) should be offered as an additional prevention choice for people at substantial risk of HIV infection as part of combination HIV prevention approaches.”

## Policy Statement on PrEP for HIV Prevention in Barbados

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*It is the Policy of the Ministry of Health that PrEP for HIV prevention may be offered to any person in Barbados who is deemed to be at substantial risk for HIV.*

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# Clinical guidelines for PrEP

Healthcare providers who issue PrEP should educate and counsel potential PrEP users about the risks and benefits of PrEP. They should conduct an individualized risk-benefit assessment to assess eligibility.

## PrEP Eligibility criteria

1. *HIV-negative;*
2. *No suspicion of acute HIV infection;*
3. *Substantial risk of HIV infection;*
  - *Refer to **Indications for the use of PrEP** below*
4. *No contraindications to PrEP medicines;*
5. *Willingness to use PrEP as prescribed, including periodic HIV testing and STI screening.*

### **Screening for PrEP Eligibility**

Screening questions should be used to introduce the consideration and offer of PrEP to people who are attending services but had not presented specifically to access PrEP. Screening questions are found in Annex 1 and should be framed in terms of people's behaviour rather than their sexual identity and should refer to a defined time period. It is important for PrEP providers to be sensitive, inclusive and non-judgemental, and support people who want and would benefit from PrEP rather than use a screening process that would discourage PrEP use. PrEP should be provided to individuals who want to use PrEP who meet the criteria according to the indications below. The record form on PrEP (Annex 2) should be completed.

## Indications for the use of PrEP

1. Adult person (> 18 years old) **who is also**
2. HIV negative and with no suspicion of acute HIV infection

### **AND at least one of the following in the last six (6) months:**

- a) Is in an ongoing sexual relationship with an HIV-positive partner who is not virally suppressed
- b) Is a man who has sex with men (MSM) engaging in unprotected anal sex with another man (receptive or insertive)
- c) Is a transgender individual engaging in unprotected sex (vaginal or anal)
- d) Exchanges sex for money or goods and engages in unprotected sex (vaginal or anal)
- e) Is a MSM, transgender individual or a person that exchanges sex for money or goods with diagnosed or reported STI
- f) Has unprotected sex (vaginal or anal) with 1 or more partners of unknown HIV status who are known, or believed, to be at substantial risk of HIV infection
- g) Had PEP for sexual exposure.

**Note:** Other individuals who may not fit within the above risk categories may qualify for PrEP or may be requesting PrEP based on perceived risk of exposure. Decisions to initiate PrEP should be individualized by weighing patients' personal risk of acquiring HIV infection against the potential benefits and risks of TDF/FTC.

## Contraindications for use of PrEP

1. HIV-positive
2. Renal impairment
  - Estimated creatinine clearance <60 ml/min
3. Signs or symptoms of acute HIV infection, probable recent exposure to HIV
4. Allergy or contraindication to any medicine in the PrEP regimen.

## PrEP drug regimen

**TDF 300 mg + FTC 200 mg once a day**

*\*Dispensed in 3 month allotments*

### Special situations:

1. Exposure to HIV in the past 72 hours: use PEP for 28 days, then start PrEP.
2. Acute retroviral syndrome:
  - a. Evaluated for this including an urgent HIV-1 RNA (Viral load) test.
  - b. Consider re-testing in 1 month before PrEP initiation.
3. Pregnancy and breastfeeding: PrEP can be offered and continued.
4. If HBsAg negative: consider vaccination; if HBsAg positive: assess HBV treatment indications; consider risk of flare if PrEP stopped.

## PrEP monitoring

PrEP should be monitored in accordance with the guidance outlined in Annex 3 and Annex 4. Problems or queries should be directed to the doctor or nurse in charge at the Ladymeade Reference Unit.

## Discontinuing PrEP

Patients may discontinue PrEP medication for several reasons, including personal choice, changed life situations resulting in lowered risk of HIV acquisition, intolerable toxicities, chronic nonadherence to the prescribed dosing regimen despite efforts to improve daily pill-taking, or acquisition of HIV infection.

Upon discontinuation for any reason, the following should be documented in the medical notes of the patient:

- 1. HIV status at the time of discontinuation**
- 2. Reason(s) for PrEP discontinuation**
- 3. Recent medication adherence and reported sexual risk behaviour**

Any person who wishes to resume taking PrEP medications after having stopped should undergo all the same pre-prescription evaluation as a person being newly prescribed PrEP. In addition, a frank discussion should clarify the changed circumstances since discontinuing medication that indicate the need to resume medication, and the commitment to taking it.

## Sites for implementation of PrEP

PrEP is offered at the Ladymeade Reference Unit (LRU) and at sites working in collaboration with the LRU and approved by the Ministry of Health.

# Annex 1: Screening for Substantial Risk for HIV infection

1. **General screening questions.** Any “yes” answer from a person should prompt a discussion of the risks and benefits of PrEP.

***In the past six months:***

- a) “Have you had sex with more than one person?”
  - b) “Have you had sex without a condom?”
  - c) “Have you had sex with anyone whose HIV status you do not know?”
  - d) “Have you injected drugs and shared injecting equipment?”
  - e) “Are any of your partners at risk of HIV, through sexual or drug using behaviour?”
  - f) “Do you have sex with a person who has HIV?”
  - g) “Have you received a new diagnosis of a sexually transmitted infection?”
  - h) “Do you desire pregnancy?”
  - i) “Have you used or wanted to use PrEP or PEP for sexual or drug using exposure to HIV?”
2. For people who have a sex partner with HIV, the following questions will help to ascertain whether that person might benefit from PrEP:
    - a) “Is your partner taking ART for HIV?”
    - b) “Has your partner been on ART for more than six months?”
    - c) “At least once a month, do you discuss whether your partner is taking HIV medication daily?”
    - d) “If you know, when was your partner’s last HIV viral load test? What was the result?”
    - e) “Do you desire pregnancy with your partner?”

- f) “Do you use condoms every time you have sex?”
- 3. Additional factors to ask about, which may indicate situations that confer increased vulnerability to HIV and help to identify someone who may benefit from PrEP:

Are there aspects of your situation that may indicate higher risk of HIV? Have you...

- a) “Started having sex with a new partner?”
- b) “Ended a long-term relationship and are looking for a new partner?”
- c) “Received money, housing, food or gifts in exchange for sex?”
- d) “Been forced to have sex against your will?”
- e) “Been physically assaulted, including assault by a sexual partner?”
- f) “Injected drugs or hormones using shared equipment?”
- g) “Used recreational or psychoactive drugs?”
- h) “Been forced to leave your home (especially if due to sexual orientation or violence)?”
- i) “Moved to a new place (possibly having a higher prevalence of HIV exposure)?”
- j) “Lost a source of income (such that you may need to exchange sex for shelter, food or income)?”
- k) “Left school earlier than you planned?”

## Annex 2: Record Form for PrEP and PEP Screening

RECORD FORM FOR PREP AND PEP SCREENING			
What was your sex at birth?	Male	Female	Other
What is your current gender identity?	Male	Female	Other
What is your current age?	years		
<b>In the past 6 months:</b>			
With how many people did you have vaginal or anal sex?	0 1 2* 3+* men 0 1 2* 3+* women		
Did you use a condom every time you had sex?	Yes	No*	Don't Know*
Did you have a sexually transmitted infection?	Yes*	No	Don't Know*
Do you have a sexual partner who has HIV?	Yes	No	Don't Know*
If "Yes," has he or she been on antiretroviral therapy for 6 or more months?	Yes	No*	Don't Know*
If "Yes," has the therapy suppressed viral load?	Yes	No*	Don't Know*
<b>In the past 3 days:</b>			
Have you had sex without a condom with someone with HIV who is not on treatment?	Yes**	No	Don't Know**
Have you had a "cold" or "flu" such as sore throat, fevers, sweats, swollen glands, mouth ulcers, headache or rash?	Yes***	No	Don't Know
<b>Consider offering PrEP; **Consider offering PEP; ***Consider acute HIV.</b>			



## Annex 3: Procedures when Initiating PrEP (First visit)

INVESTIGATION/ INTERVENTION	RATIONALE
<b>HIV test</b>	<ul style="list-style-type: none"> <li>▪ To assess HIV infection status.</li> <li>▪ If recent exposure (in the past 72 hours), consider PEP and re-test after 28 days.</li> </ul> <p>To complete a symptom checklist for possible acute HIV infection.</p>
<b>Serum creatinine</b>	<ul style="list-style-type: none"> <li>▪ To identify pre-existing renal disease (estimated creatinine clearance less than 60 ml/min).</li> </ul>
<b>Hepatitis B surface antigen</b>	<ul style="list-style-type: none"> <li>▪ If negative, consider vaccination against hepatitis B.</li> <li>▪ If positive, suggest further testing and assessment for hepatitis B treatment.</li> </ul>
<b>Hepatitis C antibody</b>	<ul style="list-style-type: none"> <li>▪ Consider for MSM populations.</li> <li>▪ If positive, refer for assessment and treatment.</li> </ul>
<b>Screening for Sexually Transmitted Infection (STIs)</b>	<ul style="list-style-type: none"> <li>▪ To diagnose and treat STIs (Syphilis, Chlamydia and Gonorrhea).</li> </ul>
<b>Pregnancy testing</b>	<ul style="list-style-type: none"> <li>▪ To guide antenatal care, contraceptive and safer conception counselling, and to assess risk of mother to child transmission.</li> <li>▪ Pregnancy is not a contraindication for PrEP use.</li> </ul>
<b>Review vaccination history</b>	<ul style="list-style-type: none"> <li>▪ Depending on local guidelines, epidemiology and populations, consider vaccination for human papilloma virus.</li> </ul>
<b>Counselling</b>	<ul style="list-style-type: none"> <li>▪ To assess whether the client is at substantial risk of HIV.</li> <li>▪ To discuss prevention needs and provide condoms and lubricants.</li> <li>▪ To discuss desire for PrEP and willingness to take PrEP.</li> <li>▪ To develop a plan for effective PrEP use, sexual and reproductive health.</li> <li>▪ To assess fertility intentions and offer contraception or safer conception counselling.</li> <li>▪ To assess intimate partner violence and gender-based violence.</li> <li>▪ To assess substance use and mental health issues.</li> </ul>

## Annex 4: Clinical Follow-Up and Monitoring Procedures

Once PrEP is initiated, patients should return for follow-up approximately every 3 months. Clinicians may wish to see patients more frequently at the beginning of PrEP (e.g., 1 month after initiation, to assess and confirm HIV-negative test status, assess for early side effects, discuss any difficulties with medication adherence, and answer questions.

All patients receiving PrEP should be seen as follows:

### **At least every 3 months to**

- Repeat HIV testing and assess for signs or symptoms of acute infection to document that patients are still HIV negative
- Repeat pregnancy testing for women who may become pregnant
- Provide a prescription for daily TDF/FTC for no more than 90 days (until the next HIV test)
- Assess side effects, adherence, and HIV acquisition risk behaviours
- Provide support for medication adherence and risk-reduction behaviours
- Respond to new questions and provide any new information about PrEP use

### **At least every 6 months to**

- Monitor eCrCl
  - If other threats to renal safety are present (e.g., hypertension, diabetes), renal function may require more frequent monitoring or may need to include additional tests (e.g., urinalysis for proteinuria)
  - A rise in serum creatinine is not a reason to withhold treatment if eCrCl remains  $\geq 60$  ml/min.
  - If eCrCl is declining steadily (but still  $\geq 60$  ml/min), consultation with a nephrologist or other evaluation of possible threats to renal health may be indicated.

- Conduct STI testing (syphilis, gonorrhea, chlamydia)

**At least every 12 months to**

- Evaluate the need to continue PrEP as a component of HIV prevention

## Additional References

1. WHO Implementation tool for pre-exposure prophylaxis (PrEP) of HIV infection.  
Geneva: World Health Organization; 2017 (WHO/HIV/2017.17)
2. Preexposure Prophylaxis for the Prevention of HIV Infection in the United States –  
2014 Clinical Practice Guideline (CDC, USPHS)