11. Oral Pre-Exposure Prophylaxis (PrEP)

Pre-exposure prophylaxis (PrEP) against HIV involves taking daily antiretroviral agents by HIV negative individuals to reduce the risk of acquiring HIV infection.

Oral PrEP containing TDF should be offered to individuals at substantial ongoing risk of HIV infection, as part of a package of combination prevention tailored to individual choice and risk profile as determined during initial and follow-up assessment and risk reduction counselling.

PrEP may be offered to the HIV seronegative partner in a sero-discordant relationship during attempts to conceive.

11.1 Recommended ARVs for PrEP

The recommended ARV regimen for use as PrEP is: TDF 300 mg and Emtricitabine 200 mg once daily (given as a FDC). Alternatively, TDF 300 mg once daily can be used if TDF/FTC is not available. If neither of these options is available, TDF 300 mg/ 3TC 300 mg may be used.

Table 11.1: Recommended Antiretroviral Agents for Oral PrEP

Preferred	Alternative
TDF/FTC (300 mg/200 mg) as FDC once daily	TDF 300 mg once daily
	TDF/3TC 300 mg/300 mg as FDC once daily

PrEP should only be offered after thorough assessment to establish eligibility, readiness for effective use, required follow-up and absence of contraindications to TDF +/- FTC/3TC.

11.2 Indications for PrEP

PrEP is offered to sexually active HIV-negative individuals who are at significant risk of acquiring HIV infection. Clients must meet ALL of the following criteria before initiating PrEP:

1. At high risk for acquiring HIV, by meeting ANY of the following indications
   - Sexual partner is known HIV positive and: not on ART, or on ART < 6 months, or suspected poor adherence to ART, or most recent VL is detectable
   - Sexual partner/s are of unknown HIV status and are at high-risk for HIV infection (has multiple sexual partners, has had STIs, engages in transactional sex, injects drugs, from high HIV burden settings)
   - Engaging in transactional sex
   - History of recent sexually transmitted infection
   - Recurrent use of post-exposure prophylaxis
   - History of sex whilst under the influence of alcohol or recreational drugs as a habit
   - Inconsistent or no condom use or unable to negotiate condom use during intercourse with persons of unknown HIV status
   - Injection drug use where needles and syringes are shared
   - Sero-discordant couples trying to conceive

2. AND meet ALL of the following criteria
   - Confirmed HIV negative (rapid antibody testing following the HTS algorithm on the day of PrEP initiation is adequate confirmation of HIV-negative status)
   - Does not have a current or recent (within past one month) illness consistent with acute HIV infection (fever, sore throat, muscle or joint pains, swollen glands, diarrhoea or headache) in combination with a preceding high-risk exposure for HIV
   - Assessed as ready to adhere to PrEP and willing to attend follow-up evaluations including repeat HIV testing and monitoring for side effects
   - No contraindication to use of TDF +/- FTC/3TC

PrEP does not eliminate the risk of HIV infection; also it does not prevent STIs or unintended pregnancies. It should, therefore, be offered as part of a combination prevention package that includes risk reduction counselling, HIV testing, condoms and lubricants, STI screening and treatment, contraception, needle exchange and opioid replacement therapy.

11.3 Risk Behaviour Assessment

Providers should make every effort to establish rapport with potential PrEP clients, provide adequate privacy and offer assurances of confidentiality. A non-judgemental attitude will contribute towards open conversation where clients will be free to share accurate information on risk (for risk assessment, Table 11.2) and concerns about PrEP. PrEP should only be offered after thorough assessment to establish eligibility, readiness for effective use, commitment to adhere to required follow-up and absence of contraindications to TDF and/or FTC.

Table 11.2: Risk Behaviour Assessment

In the last 6 months:
Have you been sexually active?
Have you had more than one sexual partner?
Have you had sexual contact where neither you nor your sexual partner was wearing a condom?
How many of your sexual partners were HIV-positive or unknown HIV status?
Have you had sex with HIV-positive partners or persons of unknown HIV status without a condom? Have you been treated for a sexually transmitted infection?
Have you injected drugs that were not prescribed by healthcare provider? If yes, did you use syringes, needles or other drug preparation equipment that had already been used by another person?
Have you had sex while you or your partner was under the influence of alcohol or drugs?
History of GBV?
Are you in a HIV discordant relationship newly diagnosed?

11.4 Minimum Required Laboratory Evaluation for PrEP

Before initiating PrEP, the following investigations should be performed:

- Rapid HIV test as per HTS guidelines
- Baseline creatinine is recommended but should not delay initiation of PrEP. For clients with pre-existing risk factor for renal impairment (such as age > 65 years, diabetes, uncontrolled hypertension, glomerulonephritis, HBV and HCV infection), every effort should be made to obtain a serum creatinine prior to initiation of PrEP
- Where available: HBsAg and HCV serology; if HBsAg is negative, offer HBV vaccination

The following investigations should be done for monitoring patients on PrEP

- Rapid HIV antibody test every 3 months
- Annual serum creatinine and CrCl

Table 11.3: Summary of Initial and Follow-up Assessment

Visit	Action
First (Screening Visit) Clinician Visit	• HIV testing and counselling • Evaluate for eligibility & willingness and readiness to take oral PrEP • Educate about the risks, benefits and limitations of PrEP • Educate client about recognizing symptoms of acute HIV infection and what to do if such symptoms occur (i.e. urgently return for HIV testing) • Behaviour risk assessment • STI screening, contraceptive counselling and services • LMP and contraceptive use (for women); if pregnancy suspected, obtain a pregnancy test. However, pregnancy in not a contraindication to PrEP • Adherence counselling • Discuss combination prevention • Laboratory Evaluation - CrCl, HBsAg, pregnancy test (baseline investigations should not delay initiation of PrEP) If no contraindication to TDF and the client is eligible and ready, prescribe TDF/FTC one tablet once daily for 30 days (alternative TDF/3TC one tablet once daily for 30 days, or TDF 300 mg once daily for 30 days); agree on a follow-up date before the prescription is finished
Visit 2 (Month 1) Counsellor/Clinician Visit	• Counsellor/ Clinician visit • Safety monitoring clinical assessment • HIV testing • Adherence and risk reduction counselling • Offer HBV vaccination if available and HBsAg negative
Visits Months 3, 9, 15, 18 Counsellor-led visits	• HIV testing and counselling • HIV risk review and assessment for PrEP continuation • Support adherence counselling
Visits for months 6, 12, 18, 24, 36 Clinician-led visit	• HIV test • Creatinine and creatinine clearance annual (earlier, if indicated) • Risk assessment review • Adherence support • Review for continuation or discontinuation of PrEP

During every visit,

- Reassess risk of HIV infection and offer risk reduction counselling. HIV testing should be repeated every 3 months
- Assess for adverse effects and adherence

Remind PrEP users that it takes 7 doses of PrEP to achieve adequate levels of the ARVs in tissues to be effective. During these days, safer sex practices should be encouraged (including abstinence and condoms).

11.5 Contra-indications to Oral PrEP

- HIV infection or suspected acute HIV infection (i.e. flu-like symptoms in the last 4 weeks in combination with a preceding high-risk exposure for HIV)
- Adolescents < 35 kg or age < 15 years
- Impaired renal function (estimated creatinine clearance of <50 mL/min)
- Unable or unwilling to adhere to prescribed PrEP or follow-up schedule

Table 11.4: Managing Clinical and Laboratory Results on Initial and Follow-up Assessment

Screening	Action
HIV-positive at initial evaluation	Do not start PrEP, counsel and link to care and treatment
HIV-positive after initiation of PrEP	Discontinue PrEP, counsel and link to care and treatment
Positive STI Screen	Thorough genitourinary and anorectal examination, urine dipstix for urethritis, serological testing for syphilis, full STI evaluation of resources available. (Refer to STI algorithm). Refer to guidelines on syndromic management of STIs
HBsAg-negative	Offer HBV vaccination
HBsAg-positive	This is not a contraindication to PrEP. However, will require monitoring of liver function and referral for management of liver disease
Flu-like illness after initiating PrEP	Continue PrEP, test for HIV at first contact and after 28 days, and if negative, continue with usual follow-up
Side effects of PrEP	GIT - nausea, vomiting, weight loss: these are often mild, self-limiting and occur during the first 1-2 months. Provide supportive counselling, offer symptomatic treatment e.g. anti-emetics like Metoclopramide 10 mg 8 hourly for 3 to 5 days Renal - transient increase in creatinine, and rarely proteinuria and Fanconi's syndrome (presenting as polyuria, bone pain and weakness). Measure creatinine (and calculate estimated creatinine clearance) at initiation of ART, at 1 and 4 months and annually thereafter (or whenever indicated (symptom directed)). If creatinine clearance (eGFR) < 50 mL/min; Do not start PrEP, recheck after 2 weeks. Refer for evaluation of underlying renal disease. If the renal function returns to normal, reassess for PrEP and initiate/ continue PrEP. When restarting PrEP, optimum protection is reached after 7 doses of PrEP. PrEP should not be prescribed for individuals using nephrotoxic drugs like acyclovir, aminoglycosides, retinoids, instead, offer alternative HIV prevention services
Pregnancy or breastfeeding	Pregnancy and breastfeeding are not contraindications to provision of PrEP. Pregnant or breastfeeding women whose sex partners are HIV positive or are at high risk of HIV infection may benefit from PrEP as part of combination prevention of HIV infection. PrEP is also indicated for HIV-negative in discordant partnerships who wish to conceive. PrEP in these situations can be prescribed during the pre-conception period and throughout pregnancy to reduce risk of sexual HIV infection

11.6 Criteria for Discontinuing PrEP

PrEP should be discontinued if ANY of the following criteria are met:

- HIV positive
- Change in risk status (low risk)
- Renal dysfunction with creatinine clearance below 50mL/min
- Client request to stop
- Sustained non-adherence
- Sustained viral suppression of the HIV positive partner in a discordant relationship. But the couple should continue consistent condom use

Users discontinuing PrEP due to low risk or requesting to stop should continue PrEP for at least 28 days after the last potential exposure to HIV. Reasons for discontinuation should be documented in the client's record.

Table 11.5: Pre-Initiation Education Check-list

How PrEP works as part of combination prevention	**Explain the need for baseline and follow-up tests including HIV testing**
Limitations of PrEP • Link efficacy to adherence • PrEP reduces but does not eliminate the risk of acquiring HIV • PrEP does not prevent pregnancies and STIs	Discuss when and how PrEP may be discontinued
PrEP use • The medications used (show the client the pills) • How the medications are used (daily) • Number of daily doses required to achieve efficacy (7 doses) • What to do when doses are missed (continue daily doses) • Discontinuation of PrEP (need to continue for 28 days from last potential exposure to HIV) • Side effects and what to do in case these are experienced (Consult the clinician)	Discuss what to do in case of client experiences symptoms of seroconversion (acute HIV infection)
Long-term use and safety of PrEP	**Risk reduction counselling and Support** Education (risk and safer sex practices) Managing mental health needs Couple counselling Access to, and consistent use of condoms and lubricants Access to and need for frequent HIV testing Early access to ART VMMC STI screening and treatment Harm reduction for PWID

Table 11.6: Pre-Initiation Assessment Check-list

Item	Y/N	Item	Y/N
HIV testing and counselling, HIV-negative		STI screening and treatment	
Symptoms of acute viral infection in last 6 weeks		For Women	
		Pregnancy test	
		Pregnancy and pregnancy intention	
		• Is the client currently using any contraception?	
		• If not, is she interested in using long-term hormonal contraception in addition to condoms?	
		• Is the client trying to conceive?	
		• Is the client pregnant or breastfeeding?	
Behaviour risk assessment		Plans for accessing PrEP	
Substance use and mental health screening		Serum creatinine and creatinine clearance > 50 mL/min	
Partner information		HBsAg	
Pre-initiation education and understanding of PrEP		HCV serology	
Readiness and willingness to adhere to prescribed PrEP and follow-up schedule		Medication history	

11.7 Who Should Provide PrEP and Where

PrEP must be prescribed by a healthcare professional who has completed training on the national guidelines for the use of ARVs as PrEP.

PrEP can potentially be offered in any setting that has trained healthcare professionals who have been trained on the national guidelines for use of ARVs as PrEP, and with systems and tools in place for the monitoring, documentation, and reporting of PrEP use.

PrEP implementation can be integrated in any setting that meets the conditions for initial evaluation and initiation including:

- Drop-in Centers (DICEs) for key populations (including community and facility settings)
- HIV clinics (for HIV-negative partners before the HIV-positive partner achieves viral suppression)
- ANC/MNCH/RH and STI clinics
- Community settings meeting the criteria for initial client assessment and evaluation eg Integrated prevention centers and youth friendly outlets
- Resupply of PrEP can be done in both community and facility settings

Documentation of PrEP must include completion of the following tools:

[e.g. PrEP enrolment register, appointment diary, follow-up register, initial and follow-up clinical assessment forms, etc]