Annex 2 to the
order of the Ministry of Health of the
Kyrgyz Republic No. 335 of 16.03.2022

MINISTRY OF HEALTH

REPUBLICAN CENTER "AIDS"

CLINICAL PROTOCOLS ON HIV INFECTION

for all levels of health care

Bishkek – 2022

Clinical protocols on HIV infection have been developed on the basis of the Clinical Guidelines for the Prevention of HIV Infection and the Clinical Guidelines for the Treatment of **HIV Infection and Comorbid Conditions (Order of the Ministry of Health of the Kyrgyz Republic No. 759 of 25.09.2020)**

Clinical restrictions on HIV infection approved by the order of the Ministry of Health of the Kyrgyz Republic
No 335 dated 16.03.2022

Clinical problem
HIV infection

Stages of assistance
Primary, secondary and tertiary levels of care

Target groups
Infectious disease specialists, family doctors, primary health care doctors, narcologists, obstetrician-gynecologists, dermatologists, doctors of other specialties; health care organizers; specialists who control the quality of medical care (FOMS).

PlanMay update date
The next revision is planned as new key evidence becomes available, or in 2024.

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LIST OF ABBREVIATIONS

ART - antiretroviral therapy ARVP - antiretroviral drug
ADS-M - diphtheria-tetanus toxoid in low dosage DTP - adsorbed pertussis-diphtheria-tetanus vaccineand ALT (ALT) - alanine aminotransferase
AsAT (AST) – aspartate aminotransferase
BCG - BCG vaccine (Bacillus Calmette-Guérin) HBV - hepatitis B virus
HCV - hepatitis C virus
PID – pelvic inflammatory diseases HIV – human immunodeficiency virus
IUD (IUD) - intrauterine contraceptive (spiral) VN - viral load
HPV - human papillomavirus
WHO - World Health Organization PrEP – pre-exposure prophylaxis
DMPA - Depo-Medroxyprogesterone DNA Acetate - Deoxyribonucleic Acid
EIC - monthly injectable AI contraceptives - integrase inhibitors
IP - protease inhibitors
IPV - inactivated liomyelitis vaccine STI - sexually transmitted infections ELISA - enzyme-linked immunosorbent assay
CFC - combined injectable contraceptives COC - combined oral contraceptives
MMR - combined vaccine against measles, mumps and rubella CRC - progestin contraceptives
CP/KR – Clinical Protocol/Guidelines cop - Caesarean section
PLHIV - people living with HIV
LNG-IUD - levonorgestrel-containing intrauterine contraceptives LPSN - person subjected to sexual violence
PWID - people who inject drugs
ICD-10 - International Classification of Diseases of the Tenth Revision of ILA - Lactational Amenorrhea Method
MOPADP - long-acting Medroxyprogesterone Acetate MSM - Men Who Have Sex with Men
NRTIs - nucleoside or nucleotide reverse transcriptase inhibitor of NNRTIs - non-nucleoside reverse transcriptase inhibitor
NGO - NON-governmental organization
NET-EN - norethisterone enanthate
KLA - complete blood count
OAM - urinalysis OVI - acute HIV infection
ODNL - Department of Dispensary Observation / Treatment of OZ - Health Care Organization
OI - opportunistic OPV infections - oral polio vaccine
Pap smear - Pap smear from the cervix for cytological examination

Surfactants - psychoactive substances
PCV - pneumococcal conjugated adsorbed 13-valence vaccine PCP - post-exposure prophylaxis
ACL - Elective Caesarean Section
PHC - primary health care
PRSS - acceptable, feasible, affordable, sustainable and safe PMTCT - prevention of mother-to-child transmission of HIV
PTC - prophylactic therapy with cotrimoxazole PTM - maintenance therapy with methadone
PCR - polymerase chain reaction
/ p - ritonavir (low dose to enhance a protease inhibitor) PB - rotavirus
RDM - early diagnosis of HIV in infants
rSCF - calculated glomerular filtration rate SDCP - situational DCP
SCF - glomerular filtration rate
AIDS - syndrom acquired immunodeficiency SR - sex workers
SRH - Sexual and Reproductive Health CVD - Cardiovascular Disease
TB – tuberculosis
TG - Transgender People
TiK - testing and consultation of ultrasound
- ultrasound examination
HIB - Haemophilus influenzae vaccine type B CIN - cervical intraepithelial neoplasia CPBS - CENTER FOR AIDS PREVENTION AND CONTROL - Family Medicine Center
PEIC - pure progestin injectionsof contraceptives ABC - abacavir
Anti-HCV – antibodies to HCV
ATV – atazanavir
AZT– zidovudine
BHIVA - British HIV Association
CDC - Centers for Disease Control and Prevention
CD4 lymphocytes – lymphocytes expressing the CD4 receptor
Cu-IUD (Cu-IUD) - copper-containing intrauterine contraceptive (agent) CYP - cellular enzymes from the group of cytochromes
DRV – darunavir
DTG – dolutegravir
EACS - European AIDS Clinical Society
EFV – efavirenz (EFV400 – efavirenz at a dose of 400 mg/day)
HBsAg – HBS surface antigen
LEEP - Loop Electroexcision LPV– Lopinavir
NIH - National Institutes of Health NVP– Nevirapine
RTV, /r – ritonavir
RAL – raltegravir
TDF – tenofovir 3TC – lamivudine FTC – emtricitabine

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The process of developing clinical protocols was carried out with the support of the project "Building the capacity of the Republican Center "AIDS" of the Ministry of Health of the Kyrgyz Republic to implement HIV/AIDS prevention, care and treatment programs in the Kyrgyz Republic within the framework of the Emergency Plan of the President of the United States for AIDS Relief (PEPFAR)".

SECTION I. POST-EXPOSURE PROPHYLAXIS OF HIV INFECTION

1. Assessment of the contact that occurred, examination of the potential source of infection and the person who contacted it

Events	Recommendations
Contact Evaluation	The following factors should be taken into account: the form of contact; type of biological fluid; duration of contact.
Potential Source Survey Infection	It is recommended to find out the HIV status of this person as soon as possible: ✓ conduct a rapid HIV test (by capillary blood or paragingival fluid); ✓ Take into account the results of previous HIV testing (if any).
Examination of the contact person	Examination of the victim after contact is carried out as soon as possible, preferably during the first hours, while it is necessary: ✓ conduct a rapid HIV test (by capillary blood or peridival fluid).

2. Care after accidental contact with HIV, or with the bodily fluids of a person with unknown HIV status

Events	Recommendations
In case of injury with a needle or other sharp instruments	✓ Immediately wash the damaged area with soap; ✓ Hold the wound surface under a stream of running water (for a few minutes, or until the bleeding stops) to allow blood to flow freely from the wound; ✓ You can not use potent drugs: alcohol, iodine, as they can cause irritation of the wound surface and worsen the condition of the wound, ✓ Do not squeeze or rub the damaged area; ✓ You can not suck blood from the wound left from the injection / cut.
When blood or other bodily fluids are spattered	(a) On intact skin: ✓ Immediately wash the contaminated area with soap; ✓ You can not use potent drugs: alcohol, iodine, as they can cause irritation of the affected surface, ✓ Do not rub or scrape the place of contact. b) In the eyes: ✓ Sit down, throw back your head and independently, or with the help of a colleague, carefully pour water or saline on your eyes (so that water or solution flows under the eyelids, you must carefully pull them from time to time); ✓ Do not remove contact lenses during washing, as they create a protective barrier; ✓ After the eyes are washed, contact lenses are removed and treated as usual, after that they are completely safe for further use; ✓ Do not wash your eyes with soap or disinfectant solution. c) In the mouth: ✓ Immediately spit out the liquid that has entered the mouth ; ✓ Rinse your mouth thoroughly with water or saline and spit it out again. Repeat the rinse several times.

3. Provision of PEP with antiretroviral drugs

- Indications for the initiation of PEP with antiretroviral drugs:
  - The presence of a risk of HIV infection;

- Informed consent of the patient;
- Treatment of the patient within the first 2 hours, and no later than 72 hours after the probable contact with HIV.

- The duration of PEP is 28 days, after the initial risk assessment, ARVI should be given for the entire 28-day course.

4. Schemes of PEP HIV infection:

Adults and teenagers*:

Preferred schema	**Alternative schemes**
TDF (or TAF) + 3TC (or FTC) + DTG or RAL	TDF + 3TC (or FTC) + DRV/r or LPV/r or ATV/r AZT + 3TC + DTG or RAL AZT + 3TC + DRV/r or LPV/r or ATV/r

Children:**

Preferred schema	**Alternative schemes**
AZT + 3TC + DTG or RAL or LPV/r TDF + 3TC (or FTC) + DTG or RAL	ABC + 3TC + LPV/r TDF + 3TC + LPV/r

**ARVP* doses *are calculated as for ART (see CR "Treatment of HIV infection and comorbid conditions").*
***When prescribing PEP to children, doses of drugs are calculated depending on weight and age (see CR "Treatment of HIV infection and comorbid conditions ").*

5. Monitoring of contacts

- HIV testing is carried out immediately after contact, and then 1 month, 3 months and 6 months after contact, even if it is decided not to conduct PEP.
- If resources are available , STI, viral hepatitis B and C are screened, as these diseases have HIV-like modes of transmission.
- In persons receiving ARVP, it is necessary to monitor the appearance of possible side effects and compliance with the regimen of preventive treatment.
- If , at the end of the PKP , the contactee has a seroconversion, he is taken for dispensary observation.
- After 6 months, with negative results of HIV testing, the observed one is removed from the register.

SECTION II. PRE-EXPOSURE PROPHYLAXIS OF HIV INFECTION

1. Indications for PrEP

1) A negative HIV test result for the client, and the presence of a sexual partner with HIV who does not receive an effectivedose:
   - less than 6 months have passed since the beginning of art;
   - irregular intake of ARVI (low adherence to ART);
   - HV more than 200 copies / ml in the last 6 months (or the result of the HV is unknown).
2) A sexually active person with a negative HIV test result from a population with an increased risk of HIV infection, and the presence of at least one of the following factors **in the last 6 months:**
   - vaginal or sex without condoms with more than one partner;
   - a sexual partner with one or more risk factors for HIV infection;
   - laboratory-confirmed STIs in the anamnesis / report of their presence / syndromic treatment of STIs;
   - the use of PEP HIV infection.
3) A client who confirms that there is a history of sharing injecting drugs with other people **in the last 6 months**.
4) Request from the client to obtain PrEP (risk assessment tools should not be used to exclude people from Ostpa services if they consider themselves at risk and wish to accept PrEP).

2. Contraindications to PrEP

- The presence of HIV infection.
- The calculated creatinine clearance* <60 ml/min (if known), however, if creatinine level is unknown, this should not be grounds for abandoning PrEP.
- Signs / symptoms of acute HIV infection (OVI)**.
- Contraindication to the intake of any component in the mode of PrEP.
- The presence of HBV infection during CDCP (relative contraindication).

3. ARRP for PrEP for adults and adolescents

- Daily oral PrEP is recommended for all clients, regardless of their gender, sexual orientation, and gender identity.
- The following regimens may be considered for use as **daily PrEP** (medication is taken daily, at the same time of day):
  - TDF 300 mg/FTC 200 mg (preferred)
  - TDF 300 mg/ZTC 300 mg (alternative)
  - TDF 300 mg (alternative, not recommended as PrEP in MSM).

4. Situational PrEP - SIDS (2+1+1)

THE PRSP (2+1+1) is a course of PrEP designed to prevent HIV infection in the following populations:

- Cisgender men;
- Transgender women who do NOT take hormonal drugs in order to correct self-identifiable sex;
- Non-binary people who have a biological male sex at birth, DO NOT take hormonal drugs in order to correct the self-identificationof the sex.

- SDCP for these populations is based on the use of a double dose (two tablets) of TDF / FTC (or TDF / 3TC) in the period from 2 to 24 hours before sexual intercourse; then the third tablet 24 hours after taking the first two tablets, and the fourth tablet 48 hours after taking the first two tablets (picture 1).

Figure 1. Scheme of reception of SDCP (2+ 1 + 1)

5. Stop DCP

Ost may be terminated by:

- When a person is no longer at risk of HIV infection:
  - cessation of risky forms of sexual behavior;
  - stopping injecting drug use;
  - suppression of viral load in an HIV-positive partner receiving ART (HV below 200 copies / ml);
- At the request of the client.
- rSCF less than 60 ml/min.
- A person receiving PrEP has tested positive for HIV. Daily PrEP must be discontinued 7 days after the last contact,

in which the client was at risk of HIV infection. For clients receiving SDCP, the pills are discontinued 2 days after the last sexual risky contact.

6. Clinical monitoring for PrEP

Type of service	Before Start of Ostwag on	Every 3 months	Every 6 months	Note
Objective inspection. Assessment of commitment. Assessment of the need for continued Ostread. Issuance of ARVs .	Yes	Yes (one month after the start of PrEP, then every 3 months)	-	Informing about the strategy H = H (U = U) "**N**elzya detect = **N**elzya to transmit". Informing about the signs of OVI. Evaluation of side effects, adherence to PrEP. Assessment for alcohol use, surfactants and behaviours associated with the risk of HIV infection. Whether the HIV-positive partner receives ART, treatment regimen and viral load test results, identification of the need for condoms and lubricants. Preparations for PrEP are issued with a daily regimen of **30 tablets**. With CDCP , drugs are issued in an amount of at least 4 tablets and not more than 30 tablets / month.
HIV Testing	Yes	Yes (one month after the start of PrEP, then every 3 months)	-	HIV testing is done for both people taking PrEP daily and those taking PRS. For HIV testing, the ELISA method or the express method (venous or capillary blood) is used. It is preferable to use 4th generation test systems. A negative test result should be documented. If the test result is positive, further examination is carried out in accordance with the current algorithm ofHIV transparency. Do not take into account the results of: anonymous examination; reported by the client; testing using peridival fluid.
Clinical screening for STIs.	Yes	Yes	-	Clinical screening (survey /examination) for STIs is carried out every 3 months for the presence of genital / ulcers, discharge from the urethra, vaginal discharge, enlargement of the inguinal lymph nodes, swelling or pain in the scrotum, pain in the lower abdomen. If the screening result is positive, the client is referred to an STI specialist. The presence of clinical signs of STIs is not a contraindication for the onset of PrEP.
Testing for STIs (only if resources are available).	Yes	Yes	-	Testing for STIs (syphilis, chlamydia, trichomoniasis, gonorrhea) for sexually active people is carried out in accordance with current recommendations. The client may be redirected to another organization for STI testing. Delay or lack of test results is not a contraindication forPrEP.

Assessment of kidney function (determination of rSCF - calculated Glomerular velocity filtration - according to the Cockcroft-Gault formula).	Subject to availability	Conduct a function evaluation kidneys in first 1- 3 months of PrEP	Yes	Persons with rSCF <60 ml/min should not be prescribed PrEP. The doctor should consider discontinuing PrEP if the rSCF drops to less than 60 mL/min. If the rSCF <60 mL/min, the test should be repeated in the following days before Stopping PrEP (to rule out a false result). Stopping PrEP is usually sufficient to restore basic functionand kidney function. After Stopping PrEP, the creatinine level may be rechecked after 1-3 months, and PrEP may be resumed if rSCF returns to a level of 90 mL/min or more. If the creatinine level has increased more than three times compared to the initial one, orthe kidney function has not recovered within three months after the cessation of PrEP, additional causes of kidney damage (diabetes mellitus, uncontrolled systemic hypertension, hepatitis C virus infection, liver failure,preeclampsia during pregnancy , etc.).
Test for HBV infection.	If possible,	Conduct research in the first 1- 3 months of PrEP	-	The HBsAg test should be repeated every 12 months (if the initial result is negative, there is a risk of infection and vaccination is not performed). A negative test result should be documented. Redirect the client to receiveHBV vaccination. If the result is positive, refer for additional examination and treatment of HBV infection. Delayed or no HBsAg test results are not a contraindication for PrEP.
Test for HCV infection.	If possible,	If possible ,	-	HCV infection should be repeated every 12 months (if the initial result is negative and there is a risk of infection). A negative test result should be documented. If the result is positive, refer for additional examination and treatment of HCV infection. Delayed or no HCV test results are not contraindicated for PrEP.
Pregnancy test.	If possible,	If possible ,	-	Pregnancy test for women of reproductive age who do not use effective contraception. Delayed or no pregnancy test results are not a contraindication for PrEP. Counseling on safe conception, contraceptive methods, safe termination of pregnancy. Testing every 3 months is not required if a woman has begun to use effective contraception.

SECTION III. PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV (PMTCT)

Cipher B20 – B 24, O98.7, R 75, Z 21

1. HIV Testing

- Indications for TiK of a pregnant woman:
  - when registering for pregnancy, and again in the 3rd trimester of pregnancy;
  - once, her sexual partner (if there is a risk);
  - admission to childbirth without HIV testing ;
  - with artificial termination of pregnancy.
- Rapid testing is carried out in cases of a woman's admission to childbirth without the results of an HIV test or the absence of test results in the 3rd trimester of pregnancy (Order of the Ministry of Health of the Kyrgyz Republic No. 640 "On double examination of pregnant women for HIV infection" dated 24.08.2020).
- Obtaining the first positive result of a rapid test or ELISA in childbirth is sufficient reason to decide whether to prescribe ART for the prevention of vertical transmission of HIV.

2. Use of ARVs in HIV-positive women during pregnancy, pand after childbirth

ART is recommended for all HIV-positive pregnant and lactating women, regardless of the clinical stage of the disease, gestational age and CD4 lymphocyte count, and continue treatment for life

- Preferred ART regimens for pregnant and lactating women:
  - TDF/ 3TC (or FTC) / DTG - it is necessary to inform the woman about the possible benefits and risks of taking dolutegravir, for independent decision-making.
  - In case of a woman's refusal from dolutegravir, it is recommended to prescribe TDF / 3TC (or FTC) / EFV + 600 or 400 mg *, art regimens with IP.

2.1 AN HIV-positive pregnant woman who sought help late or at the time of delivery (did not receive ART during pregnancy)

- Women should be offered to undergo rapid testing, and in case of a positive result, without waiting for confirmation of the result, prescribe ART according to the TDF / 3TC (or FTC) / DTG scheme and continue ART.

2.2 HIV-positive woman identified after childbirth

- A newborn is prescribed ARVs (in the first 4 hours of life) to reduce the risk of vertical transmission of HIV.
- The woman is sent to the OZ (CSM, CPBS) for further examination and treatment.

3. Choice of method of delivery in HIV-positive women

- The decision on the method of rodorresolution is made in accordance with the specific situation, depending on the level of viral load (VN), taking into account the choice of the woman.
- To choose the optimal method of delivery, it is necessary to determine the level of viral load (HV) in a woman at 36 weeks of pregnancy. If the HV is less

50 copies/ml (or below the threshold of test systems used), then delivery should be carried out through the natural birth canal.

- A woman should be counseled about the benefits and possible complications of a cesarean section.

3.1 Indications for a planned cesarean section at the 39th week before the onset of labor:

- It is not possible to determine the VN.
- The level of HV is more than 50 copies / ml.
- The duration of ART during pregnancy is less than 4 weeks (if it is impossible to determine the viral load).
- At the 39th week of pregnancy: ACL, if at the 36th week the mother has AH >50 copies / ml or unknown.

4. The use of ARVI in a newborn born to an HIV-positive woman

- Children with a high risk of HIV infection, who are on artificial feeding with a weight of ≥2500 g and / or an unknown level of HV in the mother, are prescribed two-component prophylaxis: zidovudine * 15 mg twice a day and nevirapine 15 mg once a day for6 weeks of life.
- Infants at high risk** of HIV infection who are breastfed, as well as infants who are newly exposed to HIV no later than 48 hours after delivery, or if the level of HV in the mother is unknown, should continue prophylaxis for another 6 weeks: nevirapine 20 mg once a day, or zidovudine* 20 mg twice a day (duration of infant prophylacticula 12 weeks).
- Children, regardless of the type of feeding with a weight of ≥2500, born to HIV-positive mothers receiving ART with HV <50 copies / ml, are prescribed infant prophylaxis for 6 weeks using: nevirapine 15 mg once a day (or zidovudine* 15 mg twice a day).

**Premature babies with a birth weight of 2000-2499 g are prescribed zidovudine 10 mg twice a day and nevirapine 10 mg once a day.*

***High-risk groups include:*

– infants born to HIV-positive women who have received ART less than four weeks by the time of delivery; OR

– infants born to HIV-positive women with documented levels of HV >50 copies/mL (or unknown) in the four weeks prior to delivery; OR

– infants born to HIV-positive women who sought help late, at the time of delivery, or who are breastfeeding and not receiving ART; OR

– infants born to mothers with no prenatal HIV *testing and first identifiedas HIV infection in childbirth and the postpartum period.*

- It is necessary to start taking medications in a newborn within the first 4 hours after birth.

5. Feeding a newborn

- Children born to HIV-positive women are recommended to be artificially fed while meeting the criteria for PRSPS (acceptable, feasible, affordable, stable and safe).
- Mixed feeding is unacceptable, because it increases the risk of infection of the child comparedwith exclusively breast or artificial feeding, due to the increased risk of traumatization of the intestinal mucosa of a newborn child.
- The final right to choose the method of feeding remains with the woman.

6. Care and follow-up of an HIV-positive woman during pregnancy and the postpartum period

The family doctor, the responsible person for HIV infection of the PHC and the specialist of the department of the ODN of the CPBS discuss the management of pregnancy and prepare an information sheet for the management of childbirth and the postpartumperiod (the choice of the method of delivery, the choice of ARVP for the newborn, feeding the child, the timing of laboratory tests of the newborn, vaccination).

6.1 Referral for further assistance to HIV-positive women (PHC)

Pediatric care for a newborn born to an HIV-positive mother includes:

- ARWP to prevent HIV transmission;
- Early diagnosis of HIV infection;
- Prevention of pneumocystis pneumonia sulfamethaxazole / trimethoprim (co-trimoxazole®) is carried out from 4-6 weeks of life:

(a) CHILDREN who test positive for HIV DNA (48 hours and 4-6 weeks);

b) children who are not covered by early diagnosis of HIV infection, PTC is carried out until the age of 18 months;

c) infants breastfedand at high risk of HIV transmission (see above), regardless of the results of the HIV DNA test (within 48 hours and at 4-6 weeks);

d) Children at low risk of HIV transmission, if a negative RESULT of the HIV DNA test is received, PTC is not prescribed.

6.2 Dose of sulfamethoxazole/trimethoprim (co-trimoxazole®):

- at the age of 4-6 weeks to 6 months, 1 tablet of 100/20 mg once a day;
- at the age of 6 months to 18 months, 2 tablets of 100/20 mg once a day.

6.3 Criteria for the abolition of PTC:

- children not covered by early diagnosis of HIV infection, in case of a negative HIV DNA result at a later date (3-18 months), provided that they are not in a high-risk group and are not breastfed;
- Childrenwho are breastfed and are at high risk of HIV transmission if a negative result for HIV DNA is obtained 4-6 weeks after the cessation of breastfeeding.

7. Laboratory diagnosis of HIV infection in a newborn

- Diagnosis of HIV infection in an infant is carried out by PCR on HIV DNA within 48 hours after birth. A positive PCR result is the basis for a preliminary diagnosis of HIV infection and the initiation of ART. Regardlessof the results of the tattoo, the second study should be repeated at the age of 4-6 weeks of age.
- With positive results of previous PCR studies at the age of 3-4 months of the child's life, the determination of VN by PCR RNA is carried out and ART continues.
- If the results of PCRare different, then it is recommended to conduct an ELISA study to determine the antibodies / antigen to HIV at 18 months of age.
- If HIV symptoms appear before the age of 18 months of age, PCR testing should be performed.

- If at the age of 18 months no antigens / antibodies to HIV are detected in the child by the ELISA method, then the result is interpreted as negative and further observation is carried out as a healthy child.
- If the baby is breastfed by an HIV-positive mother, and in 18 months in his blood antigens / antibodies to HIV are absent, the study should be repeated 6 weeks after the cessation of breastfeeding (if before this period the child has clinical signs indicating HIV infection, the studywill be conducted earlier).

8. Immunization

- If a negative result of RDM is obtained, BCG vaccination against tuberculosis is necessary in the maternity hospital or at the place of observation in the GSV.
- In HIV-positive infants or with unknown HIV status, BCG vaccination is not carried out.
- Other vaccinationsare carried outin accordance with the National Immunization Program (see "Immunization of people living with HIV").

SECTION IV. PREVENTION AND TREATMENT OF HIV INFECTION IN PEOPLE WHO INJECT DRUGS

ICD-10 code: B-20 – B-24, F – 11

1. Basic principles

ART for PWID is provided according to the same principles as for PLHIV who do not use surfactants. In the treatment of PLHIV with drug addiction, the cooperation of the following services is necessary: AIDS service, primary health care, drug treatment and harm reduction programs, psychological andsocial assistance.

2. Opioid maintenance therapy

In the Kyrgyz Republic, methadone hydrochloride has been used for maintenance therapy of opioid dependence since 2001; Methadone hydrochloride (methadone) is one of the most effective and most commonly used drugs for maintenance therapy. The use of doses exceeding 80 mg per day allows you to keep more patients in the program and reduce the use of illicitdrugs.

3. Detoxification programs (abstinence from drugs under medical supervision)

Detoxification for opioid dependence is an initial component of some treatment programs , but cannot be considered as an independent method of treating opioid dependence. It allows you to ease the symptoms and somatic manifestations of abstinence, and should be prescribed strictly individually.

4. Interactions between ARVS and methadone

ARWP	Effects of ARVS on Methadone	Effects of Methadone[1] on ARVPs	Notes
NRTIs			
ABC	Slight decrease in methadone levels. Low risk of opioid withdrawal. Dose adjustment is unlikely, but in some cases there may be an increase in dose. Methadone	The maximum concentration is reduced (by 34%). The time to reach the maximum concentration increases	Data are few, although one study showed a 22% increase in methadone clearance. Low risk of opioid withdrawal. A dose adjustment of methadone may be required.
AZT	Not reported. Dose adjustment is optional.	A significant increase in concentration (by 43%). Clinical significance is not clear. Possible side effects	Monitor for azt side effects. If the minimum level of methadone is normal, it is likely that the toxic effects are associated with AZT.
3TC, FTC	Not reported	Not reported	The interaction is unknown.
TDF	Not reported	Not reported	Interaction unknown
NNIOT			

ARWP	Effects of ARVS on Methadone	Effects of Methadone[1] on ARVPs	Notes
NVP	A significant decrease in methadone concentration (by 46%). Methadone withdrawal often develops. For most patients, a significant increase in the dose of methadone is required.	Not reported	Starting NVP therapy may require an increase in the daily dose of methadone by 50–100% to relieve opioid withdrawal. Withdrawal symptoms usually develop after 4–8 days of taking NVP, although a reaction may occur. develop in 2-3 weeks.
EFV	A significant decrease in methadone concentration (by 60%). Methadone withdrawal often develops. Usually a significant increase in the concentration of methadone is required. methadone doses (by 50%).	Unknown	Carefully monitor signs of methadone withdrawal and increase the dose if necessary. Withdrawal symptoms may appear after 2-3 weeks.
UI			
LPV/r, ATZ/r, DRV/, DRV/c	Decreased methadone levels. May occur abstinence, requiring an increase in dose.	Not reported	Methadone abstinence is described. Can an increase in the dose of methadone is required.
AI			
DTG	Dose adjustment is not Required	Not reported	Clinically significant no interactions detected
For the level of methadone take its min concentration in plasma, measured 24 hours after administration of the last dose. For the reliability of the assessment, it is necessary that patients take the same dose of methadone for 5 days before measurement.			

5. Psychoactive substances, illegal drugs and ARVPs

Substances	The main pathway of metabolism	Interaction	Recommendations
Amphetamines	CYP2D6	□ RTV level □ toxicity	Do not prescribe RTV and LPV/ r , even in low doses, if the patient is taking amphetamines.
Barbiturates	CYP3A4	Barbiturates (phenobarbital) – high-power inductors CYP3A4	Avoid prescribing other inductors (e.g. EFV and NVP) patients who use barbiturates.
Benzodiazepines	CYP3A4 for midazolam, triazolam, alprazolam and flunitrazepam	IP □increased sedative effect, NVP□ withdrawal syndrome	Avoid the combined use of alprazolam, midazolam and triazolam with all IPs and NVPs.
Heroin	Plasma	Ritonavir □ withdrawal syndrome	The interaction with ARVP is the same as with methadone. Therefore, NNRTIs and some IPs can cause opioid withdrawal. Observation is required .
Codeine	Uridine diphosphate glucuronyltran perferase 2B7	□ or □ IP metabolism □ overdose is possible □ weakening of analgesia	The interaction with ARVP is the same as with methadone. Therefore, NNRTIs and some IPs can cause opioid withdrawal and loss of analgesia. Observation is required.

Cocaine	CYP3A4	□ IP and EFV levels □ overdose.	Observation of possible increased hepatotoxicity.

		NVP□ hepatotoxic metabolite	
MDMA (Ecstasy) Gamma Hydroxybutyrate	CYP2D6	□ RTV level □ toxicity	Do not prescribe IP, even in low doses, if the patient is taking MDMA or gamma hydroxybutyrate. The interaction of MDMA with RTV can be lethal.
Morphine	Uridine diphosphate glucuronyltran perferase 2B7	RTV□ withdrawal, weakening of analgesia	The interaction with ARVP is the same as with methadone. Therefore, NNRTIs and some PIs can cause opioid withdrawal and loss of analgesia. clinical control.
Tetrahydrocanna binol	CYP3A4	Perhaps □ IP level. Possibly □ NNRTIs	No clinically significant interaction was found.
Phencyclidine	CYP3A4	IP and EFV□ toxicity	Control of toxicity of phencyclidine.

SECTION V. IMMUNIZATION OF PEOPLE LIVING WITH

HIV Code B20-B24, R75, Z21

Immunization of people with HIV, within the framework of the National Calendar of Preventive Vaccinations of the Kyrgyz Republic

Name of the vaccine	Recommendations for use	Optimal timing
BCG (live)	Use should be limited to those children who have a negative TEST result for HIV infection based on THE RESULTS OF PCR DNA (due to the risk of disseminated post-vaccination TB). BCG vaccination is not recommended for adolescents and adults, including HIV- positive because it has little or no effect on the incidence of lung TB.	During the stay in the maternity hospital or in the CSM at the place of residence
IPV (inactivated polio vaccine)	It is used to immunize all children with HIV (including those with clinical manifestations), and children with perinatal contact.	V1 - 3,5 months
OPV (live)	It is used for children with an asymptomatic form of HIV infection (due to the risk of severe progressive damage to the nervous system - the paralytic form of post-vaccination poliomyelitis). Close contact between recent opvs and children with HIV should also be avoided, as immunized OPV can release the vaccine virus into the environment for a month, posing a threat to children with Immune deficiency.	V1 – 2 months, V2 – 3,5 months, V3 – 5 months
HBV	Vaccination against hepatitis B should be carried out in all newborn children, regardless of the clinical manifestations of HIV infection (at least 3 vaccinations).	V1 – within 24 hours after birth
HBV in the composition of the pentavaccine (DTP-HBV-HIB)	In children with HIV, regardless of the severity of immunodeficiency, vaccination with HBV as part of a pentavaccine is carried out according to the same schedule and in the same doses as in children without HIV. Infection.	V2 - 2 months, V3 - 3,5 months, V4 - 5 months
DPT	In children with HIV, regardless of the severity of immunodeficiency, vaccination using DTP is carried out as part of a pentavaccine according to the same schedule and in the same doses as in children without HIV infection.	V 1 - 2 months, V 2 - 3,5 months, V 3 - 5 months, RV - 2 years
HIB vaccine, part of the pentavaccine (DTP-HBV-HIB)	Children with HIV under 2 years of age are recommended to receive a 3-fold vaccination.	V2 - 2 months, V3 - 3,5 months, V4 - 5 months
BPA (inactivated)	In children with HIV, regardless of the severity of immunodeficiency, ADS vaccination is carried out according to calendar dates.	V- 6 years
ADS-M (inactivated)	In children with HIV, regardless of the severity of immunodeficiency, ADS-M vaccination is carried out according to calendar dates.	11 years – once 16 years – once 26 years – once 36 years – once 46 years – once 56 years - once

PDA (live)	It is used for immunization of PLHIV with asymptomatic or mild immunosuppression in accordance with the national vaccination calendar . In severe immunosuppression (number of lymphocytes CD4<200 cells / μl), MMR vaccination is contraindicated.	V- 12 months, V-6 years.
RV (rotavirus infection)	Regardless of the number of lymphocytes T4DM	V 1 - 2 months, V 2 - 3,5 months, V 3 - 5 months
PCV (Pneumococcal conjugate vaccine)	It is used for immunization of children from 0 to 2 years, regardless of the clinical manifestations of HIV infection	V1 - 2 months, V2 - 5 months, V3 - 12 months
HPV	Vaccination is carried out only for girls.	11 years (for PLHIV at any age , the introduction of three doses is recommended - the initial, after 1-2 and 6 months)

Immunization of people living with HIV, carried out according to epidemic indications

Name of the vaccine	**Recommendations for use**	**Optimal timing**
Influenza vaccine	Immunization of all PLHIV is recommended, regardless of clinical manifestations , starting from 6 months of age.	Annually once
Meningococcal vaccine	Immunization is carried out for all persons living or traveling to countries endemic for meningococcal infection, starting from 1 year of age, regardless of the clinical manifestations of HIV infection.	Once
Cholera vaccine WC/rBs (inactivated)	Immunization is provided to all persons living in or travelling to countries with a cholera situation, regardless of the clinical manifestations of HIV infection.	2x with an interval of 2 weeks
Vaccine against viral hepatitis A (inactivated)	They are recommended for people with an increased risk of HAV infection, regardless of whether they have HIV infection and its clinical manifestations: - Persons with chronic liver disease - MSM - Persons who use drugs - Persons with bleeding disorders - Persons at occupational risk of HAV infection - Persons over 1 year of age planning to visit a country endemic to HAV.	2x: V1, V2 in 6-12 months
Vaccine against viral hepatitis B (inactivated)	Immunization is recommended for people with an increased risk of HBV infection, regardless of whether they have HIV infection and its clinical manifestations: - MSM - WED - Heterosexuals with a large number of sexual partners - Persons with STIs	0-1-6 months 0-1-2-6 months

	- Partners and family members of HBV carriers - Prisoners - Persons on hemodialysis - Healthcare professionals Immunization is carried out according to different schemes: - If the number of lymphocytes is CD4>500 cells / µl - 3-fold - If the number of CD4 lymphocytes is from 200 to 500 cells /µl – 4x - If the number of lymphocytes is CD4<200 cells / µl, then ART is first prescribed, and immunization is carried out according to the results of treatment, if the number of CD4 lymphocytes becomes> 200 cells / µl - 4-x multiples.	
Typhoid subunit vaccine (Vi-polysaccharide)	It is recommended to inject all PLHIV before leaving for countries in which the risk of typhoid fever is increased, as well as those who will be in close contact with a carrier of *Salmonella typhi*. One dose of the vaccine should be administered at least 2 weeks before the intended contact. It is recommended to carry out revaccination every 3 years, and persons with the number of CD4 lymphocytes <200 cells / µl this interval can be reduced to 2 years.	Once, with revaccination every 3 (2) years.
Vaccine against tick-borne encephalitis	Vaccination is recommended for PLHIV, which are collected in areas endemic for tick-borne encephalitis. PLHIV with the number of lymphocytes CD4>400 cells / µl is recommended to receive 3 doses. PLHIV with the number of lymphocytes CD4<400 cells / µl is recommended to receive 4 doses.	V1, V2 after 4-12 weeks, V3 after 9-12 months 0-1-2-(9-12) months
Rabies vaccine (culture)	Used for post-exposure prophylaxis of rabies in PLHIV. After one course of vaccination, it is necessary to determine the level of neutralizing antibodies, if it <0.5 IU / ml, it is necessary to introduce additional doses of rabies vaccine.	4-5 times a week for 4 weeks
Plague vaccine and anthrax vaccine	They are recommended for use in PLHIV, regardless of the clinical manifestations of the disease on a general basis.	According to the admonition

SECTION VI. SUPPORTING REPRODUCTIVE AND SEXUAL HEALTH IN PLHIV

1. Methods of contraception in PLHIV

Recommendations on contraceptive methods are based on WHO materials on contraceptive eligibility criteria and practical recommendations. HIV infection is included inthe guidelines as one of the factors determining the acceptability of the main methods of contraception (Table 1).

Table 1. Medical criteria for the admissibility of contraceptive methods (WHO)

Category	**Contraceptive** methods	**The method can be used**
1	The use of the method is allowed under any circumstances	Yes (the method can be used)
2	In most cases, there are no contraindications to the use of the method	Yes, but we need to weigh the advantages and disadvantages
3	The method is generally not recommended unless a more appropriate contraceptive or use is unacceptable to the client.	No, but you have to weigh the advantages and disadvantages
4	The use of the method is absolutely contraindicated	No (this method is not recommended)

2. Medical criteria for the permissibility of barrier methods of contraception (WHO)

Condition	**Male and female condoms**	**Spermicides**	**Diaphragm**
High risk of HIV infection	1	4	4
HIV infection, stages 1 and 2	1	3	3
HIV infection, stages 3 and 4	1	3	3
ART (NIOT)	1	3	3
ART (NNIOT)	1	3	3
ART (IP)	1	3	3
ART (AI raltegravir)	1	3	3

3. Medical criteria for the admissibility of combined hormonal methods of contraception (WHO)

Condition	**Combined oral contraceptives**	**Combined injectable contraceptives**	**Combined contraceptive patch and combined Vaginal ring**
High risk of HIV infection	1	1	1
HIV infection, stages 1 and 2	1	1	1

HIV infection, stage 3 and 4	1	1	1
ART (NIOT)	1	1	1
ART (NNIOT, containing efavirenz and nevirapine)	2	2	2
ART (IP)	2	2	2
ART (AI raltegravir)	1	1	1

4. Medical criteria for the admissibility of the use of progestin contraceptives (WHO)

Condition	**Pureprogestin oral contraceptives**	**Pureprogestin injectable contraceptives**	**Implants**
High risk of HIV infection	1	2	1
HIV infection, stages 1 and 2	1	1	1
HIV infection, stages 3 and 4	1	1	1
ART (NIOT)	1	1	1
ART (NNIOT, containing efavirenz and nevirapine)	2	1-DMPA/ 2-NET-EN**	2
ART (IP)	2	1-DMPA/2-NET-EN**	2
ART (AI raltegravir)	1	1	1

5. Medical criteria for the permissibility of the use of intrauterine contraceptives (WHO)

Condition	**Cu (copper) – VMK**	**LNG-VMK**
High risk of HIV infection	2	2
HIV infection, stages 1 and 2	2	2
HIV infection, stages 3 and 4	2/3	2/3
ART (NIOT)	2/3*	2/3*
ART (NNIOT)	2/3*	2/3*
ART (IP)	2/3*	2/3*
ART (AI raltegravir)	2/3*	2/3*

6. Use of emergency contraception

1. Levonorgestrel at a dose of 1.5 mg (2 tablets of 0.75 mg in one dose or at intervals of 12 hours). It should be taken as early as possible after unprotected sexual intercourse, no later than 120 hours after.
2. Low-dose mini-pills containing 30 μg of ethinyl estradiol and 150 μg of levonorgestrel, the first dose (4 tablets) should be taken as early as possible, but no later than 120 hours after unprotectedpuppy intercourse. The second dose (4 more tablets) is taken 12 hours after the first.
3. Combined oral mini-pills containing 5 μg of ethinyl estradiol and 250 mcg of levonorgestrel. The first dose (2 tablets) should be taken as early as possible, but no later than 120 hours after unprotected sexual intercourse. The second dose (2 more of the same tablets) is taken 12 hours after the first.
4. Copper-containing IUDs can also be used within 5 days of unprotected sexual intercourseas an emergency contraceptive.

it is possible to determine the time of ovulation, Cu-IUD, if necessary, can be administered later than 5 days after unprotected sexual intercourse , provided that it is administered no later than 5 days after the earliest estimated period of ovulation.

5. When taking antiprogestin mifepristone (10 mg orally) for 120 hours (5 days) after unprotected sexual intercourse, high efficiency is observed with minor side effects.

7. Methods of termination of pregnancy

- Medical methods (medical artificial abortion) - the use of drugs for abortion (see KP "Medical abortion in the I and II trimesters of pregnancy" No. 42 of 18.01.2017).
- Surgical methods of abortion of pregnanciesand (surgical artificial abortion) - the use of transcervical surgical interventions to terminate pregnancy, including the expansion (dilatation) of the cervical canal and the evacuation of the contents of the uterine cavity (DiE), as well as vacuum aspiration (see SOP for manual / manual vacuum aspiration (MBA / PBA) operation)
  No 379 dated 04.07.2014).
- Currently, there is no data on the effectiveness of the recommended doses of mifepristone and misoprostol (or gemeprost) in women with HIV, so these drugs are prescribed to them in the same doses as women without HIV.

8. Management of cervical intraepithelial lesions and cervical cancer in HIV-positive women.

- Cytological examination of Pap smears should be offered to women living with HIV at least 1 time per year. Research is carried out in the same way as for women without HIV.
- In the presence of precancerous diseases in the anamnesis, a cytological examination of Pap smears is carried out every 4-6 months until 3 normal results in a row are obtained.
- If atypical cells of the squamous epithelium of unknownsignificance (APNZ) or atypical cells of the squamous epithelium, which do not allow to exclude squamous intraepithelial lesions of high severity, a study is carried out to identify genotypes of HPV of high oncogenic risk (PCR).

8.1 General principles of management of patients with CIN

- The management of women with HIV who have CIN is no different from that of women without HIV. Although ART sometimes causes spontaneous regression of CIN, the treatment tactics for patients receiving and not receiving ART are the same.
- With a histologically confirmed diagnosis of CIN 1 (mild degree), observation is recommended. Exceptions are the following cases:
  - lesions of persistentcomfort for more than 18-24 months;
  - lesions evolve into CIN 2 or an even more severe degree of lesion is observed;
  - the patient does not follow the recommendations for observation.

8.3 Treatment of cervical intraepithelial lesions (KP "Management of patients with cancer and preinvasive cervical diseases at the primary and secondary levels of health care"; Manual No. 392 of 08.07.2015 "Management of patients with cervical cancer at the tertiary level" No. 29 of 22.01.2015).

- Cone biopsy is performed underphysical anesthesia on an outpatient basis using the technique of "cold knife" or loop electroexcision (LEEP).
- In CIN 2 and CIN 3, both methods of destruction and excision of altered tissues are used.
- In women with HIV, there is a high probability ofp ecidiv, persistence and progression of moderate to severe cervical dysplasia (CIN 2 and CIN 3) after treatment (40-60% of cases), so the examination should be carried out every 6 months. If a relapse, persistence or progression of lesions of a high degree of malignancy is detected, emergency treatment is indicated.
- In the absence of concomitant gynecological diseases subject to surgical treatment, hysterectomy for precancerous diseases of the cervix is contraindicated.
- Treatment of CIN in patients receiving and not receiving ART is the same; CIN is nota link to prescribing or modifying the ART regimen.

8.4 Treatment of invasive cancer

- If the CD4 lymphocyte count <200 cells/μL, surgical treatment (as indicated) or gentle chemo- or radiation therapy is preferred.
- In the later stages of HIV infection, the prognosis for all treatments for cervical cancer is poor. If the CD4 lymphocyte count >2,00 cells/μL, standard treatment is possible.

9. HPV vaccination

People living with HIV, as well as women over 15 years of age, are also recommended to be vaccinated against HPV, while three doses (0, after 1-2 and 6 months) are necessary to ensure complete protection against infection.

SECTION VII. ANTIRETROVIRAL THERAPY

1. Key definitions.

Antiretroviral therapy is a method of treating HIV infection aimed at suppressing HIV replication, which will lead to an improvement in the quality of life of HIV-positive persons, reducing their morbidity and mortality.

Adherence to ART is the degree to which a patient's intake of ARVI complies with the doctor's agreed recommendations.

Patients with advanced stage of the disease - defined as those who at the time of seeking help have a lymphocyte count of CD4 <200 / mm3 or clinical stage of the disease 3 and 4 according to the WHO classification. All children under 5 years of age are considered to be patients with advanced HIV infection.

Stable patients – patients aged 18 years and older who :

- have received ART for at least one year, do not have side effects of ART, requiring constant monitoring;
- do not andare pregnant, do not breastfeed; do not have active opportunistic diseases (2, 3, 4 clinical stages of HIV infection);
- are aware of the importance of adherence to treatment, and have evidence of successful treatment (HV with two consecutive measurements below 50 (or 500) copies / ml) and cd4 lymphocyte count above 200 cells / mm^3.

Unstable patients are those who do not meet the criteria of a stable patient. PLHIV is considered **lost for follow-up** if the period of no-show (for an appointment with a doctor, or for obtaining an ARVP) exceeds 28 days after the scheduled date of the visit. In the event that the patient does not show up for an appointment within 28 days of the scheduled date of the visit, the AI electronic case tracking system should be used.

fix the STOP ART .

Removal from the dispensary registration of PLHIV (including in the system of electronic tracking of HIV cases) is carried out in the following cases: documented death of the patient (medical death certificate); a documented fact of the patient's departure from the place of residence (for example, a certificate from the aiyl okmotu, house management); written refusal of the patient from the medical examination. In other cases, the removal from the dispensary register must be necessarily agreed with the department ofthe organization of dispensary observation and treatment of the RC "AIDS", with the provision of written notification of the reasons for the removal of PLHIV from the dispensary register and the measures taken to search for PLHIV.

Age groups: an adult is a person from the age of 18; a teenager is considered to be aperson aged 10-17 years inclusive; a child is a person between the ages of one and 10; an infant is a child under one year of age.

2. Examination of PLHIV during the initial and subsequent visits.

Post-test counseling for HIV infection should be conducted for all PLHIV, including the provision of information on the following issues:

- observance of confidentiality (Criminal Code of the Kyrgyz Republic, article 160 "Disclosure of medical secrets") and responsibility forhiv infection of other persons (Criminal Code of the Kyrgyz Republic, article 149 "Infection with an incurable infectious disease");
- disclosure of status to your sexual partner and index testing;
- the benefits of rapid initiation of ART and adherence to ART;
- strategy H = H (U = U) "**N**elzya detect = **N**elzya to transmit" (PLHIV who receive effective ART and have reached an undetectable level of viral load cannot transmit HIV sexually);
- determination of the date of the next visit.

List and frequency of surveys

Evaluation/survey*	Frequency	Note
Family history	First visit	CVD, diabetes mellitus, arterial hypertension, chronic kidney and liver diseases, autoimmune and endocrine diseases, etc.
Past use of ARRP	Before starting or resuming ART	All ARVs that the patient has taken, including PRP/PrEP and the results of TESTS for HIV resistance to ARVP.
Concomitant drug therapy	Every visit	Including dietary supplements, medicinal herbs.
Presence of sexual partners	Every visit	Offer index testing every 6-12 months if the partner is not screened or the partner's previous HIV test result is negative and there is no viral suppression or HV is unknown. Offer PrEP if PLHIV does not have vi ruse suppression, or VN is unknown.
Evaluation of side effects and adherence to ART	Every visit	For a certain group of patients , you may need the support of employees of public organizations and peer counselors.
Objective inspection	Every 1-6 months.	Every 1-3 months. for unstable patients, including children and adolescents. Every 3-6 months. for stable patients.
Assessment of social and living conditions, including smoking, surfactants and Alcohol	Every 3-6 months.	Redirect to appropriate programs if social, domestic problems or drug/alcohol dependence are detected.
Assessment of sexual and reproductive health	Every 3-6 months.	Safe sex, contraception, problems of conception, partner status and disclosure of status, menopause.
Assessment of body mass index	Every 6 months	More often, if there is a progressive increase or decrease in body weight.
Issuance of ARWP	Every 1-12 months.	Stable patients - up to 6 months. Migrants in stable condition - up to 12 months. (provided that every 12 months. patients are provided with examination results confirming the efficacy and safety of ART - VN, OAC, OAM, ALT and AST, bilirubin, creatinine). Unstable patients (including migrants) - every 1-3 months. until they move into the category of stable patients. Every 3 months, unstable patients (including migrants) should be examined for HV and provide the result of the examination to the attending physician. In the future, the number of ARVPs issued depends on the results of the examination, In order to reduce the risk of developing HIV drug resistance and severe side effects , it is not recommended to give

		ARVs for more than 3 months if there is no evidence (clinical and/or laboratory) of the efficacy and safety of ART. Cm. See also the Order of the Ministry of Health of the Kyrgyz Republic No. 622 dated 14.08.2020 "On Approval of Standard Operating Procedures for the Delivery and Issuance of ARVPs in OZ and On the Basis of Communities".
Concomitant diseases and conditions		
Diseases of the kidneys, lungs, liver, bone and CVD	Risk Assessment One every 1-2 years	Cm. KR "Treatment of HIV infection and comorbid conditions "
Depression	According to indications	Use a standard questionnaire. Redirect to a specialist (family doctor, psychiatrist) if depression is detected.
Assessment of child development	Every 3 months	Assessment of physical development: body weight, height at any age and head circumference (up to 2 years of age). Assessment of psychomotor and mental development. Correction of the dose of ARVp in dependence on body weight. Evaluation and support of nutrition in children.
Other types of screening (in accordance with current clinical protocols, with access to the examination and in coordination with the family doctor, gynecologist, etc.)	Once every 1-3 years.	Mammography for women over 40 years of age. Pap smear or liquid cytology, or a DNA test of the human papillomavirus for women who are sexually active. Rectal examination, PAP smear for MSM. Ultrasound and alpha-fetoprotein test for patients with HBV, or with HCV and cirrhosis of the liver.
Pregnancy test (conducted with the availability of rapid tests)	According to indications	For women of reproductive age and adolescent girls who do not use effective contraception.
Laboratory studies		
Viral load	Every 3-12 months.	Before starting ART , then after 3, 6, 12 months. Then every 12 months. stable, every 3-6 months. unstable patients.
Genotypic test resistance	According to indications	ART more than 12 months, VN more than 500-1000 copies in 2 consecutive studies with high commitment to ART.
CD4 lymphocyte count	Every 3-6 months.	Before starting ART, then every 3-6 months. Determination of the percentage of CD4 lymphocytes in children <6 years. In adult stable patients, the study may not be carried out in the future if CD4> 200 / mm^3.
HLA B*57:01 (at availability of the survey)	Once	Before starting ART with abacavir (prevention of hypersensitivity reaction).

UAC, OAM, ALT/AST, bilirubin, creatinine and rSCF	Every 3-12 months.	The multiplicity may be more frequent, and depends on the initial data, concomitant diseases and medications taken by the patient on this occasion , the scheme

		treatment and the presence of side effects of ARVI, age and other factors. To calculate the rSCF, use standard formulas, for example, the Cockcroft-Gault formula.
Glucose	Annually	
Lipid profile (with availability of the survey)	Annually	
Infection		
Clinical screening for TB	Every visit	Weight loss, night sweats, cough, fever. Children are also evaluated contact with a patient with active TB, poor weight gain , decreased activity (playfulness).
TB (X-Ray Examination) lungs)	Annually	Radiography, fluorography, etc.
TB - LF-LAM test (TB-LAM)	According to indications	In accordance with the approved algorithm (order M3 No. 1240 of 09.09.21)
TB (sputum microscopy, Xpert MTB/ RIF, Mantoux test etc.)	According to indications	It is carried out in accordance with the current clinical protocols, with access to laboratory and diagnostic examination and in coordination with phthisiatrician.
Clinical screening for STIS	Every 3-6 months.	Syndromic approach.
Serological screening for syphilis (according to indications and with the availability of examination)	First visit	Next, conduct screening in accordance with current clinical protocols every year if there is a risk (for example, MSM, CP).
Screening for HBV and HCV - ELISA, rapid tests (if examination is available)	First visit	Conduct screening (anti-HCV, HBsAg) in accordance with current clinical protocols every year if there is a risk (for example, MSM, PWID) and no vaccination against HBV. In case of a negative screening result for HBV - vaccination against HBV (if the vaccine is available). With a positive result of screening, the patient is assisted in accordance with the clinical protocol for the combined andinfectious hiv/HV infection.
Screening for cryptococcal antigen (subject to availability)	According to indications	If the number of lymphocytes is CD4<100 / mm^3.
Prevention of OI	According to indications	Cm. Annex 7.4.

Data Management		
Timely data entry	On the day of delivery Services	Entries in the medical record, work logs. Entering data into the electronic tracking system and HIV cases and other electronic databases.

**With the informed consent of PLHIV, part of the HIV-related services can be provided on the basis of public organizations, including the issuance of ARWP, PREP and index testing (subject to the availability of resources and the necessary regulatory framework) – Annex 7.5..*

4. Indications for ART

- Rapid initiation of ART within **seven working days** from the date of diagnosis of HIV infection should be offered to all PLHIV after a confirmed diagnosis of HIV infection, regardless of the clinical stage of the disease and with any number of CD4 lymphocytes.
- ART should be prescribed on the same day (the day HIV infection is detected) to the following groups of patients:
  - PLHIV who are ready to start treatment on the same day (especially pregnant women with HIV);
  - in cases where there is no effective therapy for OI (for example, cryptosporidiosis, progressive multifocal leukoencephalopathy).
- ART may be delayed in the following clinical situations :
  - in case of CO-infection with TB/ HIV - start anti-tuberculosis therapy , then within the first 2 weeks of treatment begin ART;
  - with tuberculous meningitis (postpone ART for 4 weeks, and start ART within 8 weeks after starting TB treatment);
  - cryptococcal meningitis (postpone ART for 4-6 weeks from the start of treatment for meningitis);
  - asymptomatic cryptococcal antigenemia (postpone ART for 2 weeks from the start of antigenemia treatment);
  - retinitis caused by cytomegalovirus (postpone ART for 2 weeks from the start of treatment for retinitis);
- Prior to the initiation of ART, efforts should be made to collect blood samples for laboratory testing (primarily for HV). However, if it was not possible to take blood, or the test results are delayed, for the start of ART there is no need to wait for the results of studies on HV, the number oflymphocytes CD4, clinical and biochemical studies, with the exception of the following clinical situations:
  - high risk of life-threatening drug interactions between ARVs and other drugs;
  - high risk of severe side effects of ARVP, summation of side effects of ARVP and other drugs;
  - severe comorbidity , the treatment of which is more relevant than ART.
- If the result of the HV (a sample taken before the start of ART, on the day of the start of ART, or within 10 days after the start of ART) is less than the threshold for determining the applied test systems, it is recommended to re-examine by ELISA and PCR for HIV DNA to verifythe diagnosis of HIV infection (*see the order of the Ministry of Health of the Kyrgyz Republic No. 303 "Laboratory diagnosis of HIV infection in the Kyrgyz Republic" dated 28.04.2018*).
- Before starting ART, it is necessary to obtain written informed consent from adults, for an HIV-positive child - froma parent or guardian (*Appendix 7.1*).

5. First line ART schemes

Preferred first-line ART schemes

Categories of patients*	**Preferred schemes**
Adults and adolescents, including pregnant women with HIV, PWID with HIV, patients co-infected with TB/HIV, HIV/HV	TDF or TAF + 3TC or FTC) + DTG
Children	ABC + 3TC + DTG
Newborns	AZT + 3TC + RAL

Alternative first-line ART schemes

Categories of patients	Alternative schemes
Adults and teenagers	TDF (or TAF) + 3TC (or FTC) + $EFV_{400/600}$ ABC + 3TC + DTG
Children	ABC + 3TC + LPV/r or RAL TAF + 3TC (or FTC) + DTG TDF (or TAF) + 3TC (or FTC) + EFV
Newborns	ABC + 3TC + LPV/r ABC + 3TC + RAL

First-line ART schemes **in special situations**

Categories of patients	Alternative schemes
Adults and teenagers	AVS + 3TC + EFV_{600} TAF + FTC + BIC DTG + 3TC
Children	ABC + 3TC + EFV AZT + 3TC + LPV/r (or RAL)
Newborns	AZT + 3TC + LPV/r

ARV dosing regimens in adults, adolescents and children

INN	Dose
Non-nucleoside reverse transcriptase inhibitors (NNRTIs):	
EFV efavirenz	600 mg or 400 mg 1 time per day.
Protease inhibitors ***(PIs)***	
LPV/r Lopinavir/Ritonavir	400/100 mg 2 times a day (body weight more than 35 kg)
DRV/r darunavir/ritonavir	800/100 mg 1 time per day, or 600/100 mg 2 times a day - PLHIV who have previously taken ip or with at least one mutation associated with resistance to darunavir (body weight more than 40 kg)
DRV/c darunavir/cobicistat	800/150 mg 1 time per day (body weight more than 40 kg)
ATV/r atazanavir/ritonavir	300/100 mg 1 time per day (body weight more than 35 kg)
ATV/c atazanavir/cobicystat	300/150 mg 1 time per day (body weight more than 35 kg)
Integrase inhibitors ***(AI)***	
DTG dolutegravir	50 mg 1 time per day (body weight more than 20 kg), or 50 mg 2 times a day (in case of HIV resistance to AI, or when taken simultaneously with rifampicin)
Combined drugs in fixed dosages	
ABC/3TC abacavir/lamivudine	600/300 mg 1 time per day (body weight more than 25 kg)
AZT/3TC zidovudine/lamivudine	300/150 mg 2 times a day (body weight more than 30 kg)
TDF/FTC tenofovir/emtricitabine	300/200 mg 1 time per day (body weight more than 30 kg)
TDF/3TC tenofovir/lamivudine	300/300 mg 1 time per day (body weight more than 30 kg)
TAF/FTC Tenofovir Alafenamide /Emtricitabine	25/200 mg 1 time per day (body weight more than 25 kg in combination with AI or NNRTIs, more than 35 kg in combination with IP)
TDF/FTC/EFV tenofovir / emtricitabine/efavirenz	300/200/600 mg 1 time per day (body weight more than 40 kg). 300/200/400 mg 1 time per day (body weight more than 35 kg).
TDF/3TC/DTG tenofovir/lamivudine/dolute gravir	300/300/50 mg 1 time per day (body weight more than 30 kg)
ABC/3TC/DTG abacavir/ lamivudine/dolutegravir	600/300/50 mg 1 time per day (body weight more than 25 kg)
TAF/FTC/BIC tenofovir alafenamide/emtricitabine/ bictegravir	25/200/50 mg once a day (body weight more than 25 kg)
TAF/FTC/DTG Tenofovir Alafenamide/Emtricitabine/ dolutegravir	25/200/50 mg once a day (body weight more than 25 kg)

3TC/DTG lamivudine/dolutegravir	300/50 mg 1 time per day (adult patients only)

Dosage regimens depending on the form of release of **ARVP**

ARVP and Form of release	Dose depending on body weight, kg									
	3,0– 5,9		6,0– 9,9		10,0–13,9		14,0–19,9		20,0–24,9	
	morning	Evening	morning	Evening	morning	Evening	morning	Evening	morning	Evening
EFV (tab.), 200 mg					1		1,5		1,5	
LPV/r (p-p), 80/20 mg/ml	1 ml	1 ml	1,5 ml	1,5 ml	2 ml	2 ml	2,5 ml	2,5 ml	3 ml	3 ml
LPV/r (pellets)*, 40/10 mg	2	2	3	3	4	4	5	5	6	6
ABC/3TC (tab.), 60/30 mg	1	1	1,5	1,5	2	2	2,5	2,5	3	3
ABC/3TC (tab.), 120/60 mg	0,5	0,5	0,5	1	1	1	1	1,5	1,5	1,5
AZT/3TC (tab.), 60/30 mg	1	1	1,5	1,5	2	2	2,5	2,5	3	3
RAL (RB), 100 mg	-	-	-	-	-	-	1	1	1,5	1,5
RAL (granules), 100 mg/package	2,5 ml	2,5 ml	5 ml	5 ml	8 ml	8 ml	-	-	-	-
DTG (dysp. tab.), 5 mg	1		3		4		5		-	
DTG (dysp. tab.), 10 mg	0,5		1,5		2		2,5		-	
DTG (tab.), 50 mg	-		-		-		-		1	

**Tablets for adults 200/50 mu can be used for children weighing 14.0-24.9 kg (1 tablet in the morning and evening) and for children weighing 25.0-34.9 kg (2 tablets in the morning and 1 tablet in the evening).*

Selection of the mode for starting ART depending on the clinical situation

Clinical situation	Recommendation
VN >100000 copies/ml	Avoid ABC/3TC + EFV or ATV/r or ATV/s (high incidence of virologic failure).
VN >500000 copies /ml	Do not prescribe DTG + 3TC.
HBV infection (HbSAg)	Do not assign 3TC without TDF or TAF, or other active against HBV drug (HBV resistance).
There are no results of a study on HIV resistance.	Do not prescribe DTG + 3TC.
Chronic kidney disease (decrease in pSKF <60 ml / min)	Instead of TDF, use TAF (if pSCF> 30 ml/min) or ABC, or DTG + 3TC. It is required to adjust the dose of ARVP in patients with chronic renal failure or in persons on hemodialysis. ATV may be associated with chronic kidney disease.

Liver diseases and cirrhosis	Some ARVPs (e.g., ABC, AZT, ATV, DRV) are contraindicated or may require a change in dosage in patients with cirrhosis Class B and C livers according to Child-Pugh.
Osteoporosis	Instead of TDF , use ABC or TAF.

Psychiatric diseases	Avoid EFV schemes. Patients on regimens with integrase inhibitors should be under close monitoring.
HIV-associated dementia	Avoid EFV schemes.
High risk of CVD	Avoid schemes with ABC and LPV/r.
Lengthening the QT interval	High concentrations of EFV can cause prolongation of the QT interval.
Simultaneous administration of drugs containing positive cations (Ca^{+2}, Mg^{+2}, Al^{+2}, Fe^{+2}, etc.)	DTG, BIC, RAL - taken 2 hours before or 6 hours after taking drugs containing Ca^{+2}, Mg^{+2}, Al^{+2}, Fe^{+2} and other polyvalent cations. It is permissible to take simultaneously in meal time dolutegravir and preparations containing Ca^{+2} and Fe^{+2}.

Precautions for ART

Preparation	Comments
UI	As IPs (protease inhibitors) in ART regimens in adults and adolescents, boosted darunavir, atazanavir or lopinavir can be used.
ABC	Before the appointment of ABC , if possible , test for HLA-B*57:01. Consultation about the hypersensitivity reaction is mandatory.
ATV/r, ATV/c	With caution when combined with inhibitors of gastric secretion (proton pump inhibitors and $_{H2\text{-receptor}}$ blockers). Take with a meal.
BIC	It is not recommended to prescribe to pregnant women.
COBI	Co-administration with TDF is not recommended for patients with rSCF <70 ml / min. It is not recommended to prescribe to pregnant women.
DRV/r, DRV/c	Take with a meal.
DTG	Adult women and adolescent girls capable of childbearing should be offered effective contraception. It can be prescribed to adult women and adolescent girls of childbearing age or capable of childbearing, who want to become pregnant or do not use effective contraception, if they have been fully informed about the possible increased risk of neural tube defects (from the moment of conception to Patients can use DTG or EFV and make the choice of being informedof the risks and benefits of each treatment regimen. If a woman finds out that she is pregnant, after the first trimester, DTG therapy should be started or continued throughout pregnancy. In children, DTG can be used in recorded doses in age groups and groups allocated by body weight. It is not recommended to prescribe to newborns.
EFV	EFV-based ART should not be performed in conditions where the national estimate of baseline EFV resistance is 10% or higher. EFV should not be given to children younger than 3 years of age. Do not prescribe if there was a history of suicide attempts or mentalillness.Take before bedtime, or 2 hours before dinner.
LPV/r	LPV/r solution or granules can be used when starting treatment older than two weeks. LPV/r in pellets should not be used in infants younger than 3 months of age

RAL	Newborns who start receiving RAL-based ART should be transferred to LPV/r or DTG as soon as possible. In children, RAL should be used as an alternative regimen only in case of unavailability of solid dosage forms of LPV / r or DTG.
TAF	It may be considered for prescription if the drug is available in the country, especially in persons with established osteoporosis and / or impaired renal function. In children, it can be used in registered doses as an alternative to NRTIs in age groups and groups expressed by body weight. It is not recommended to prescribe Pregnant.

6. Second line ART schemes

Second-line ART schemes **for adults and adolescents***

Unsuccessful first-line scheme	**Preferred second line scheme**	**Alternative scheme of the second line**	**Special Situations**
TDF (or TAF or ABC) + 3TC (or FTC) + DTG	AZT + 3TC + ATV/r (or ATV/c)	AZT + 3TC + LPV/r	AZT + 3TC + DRV/r (or DRV/s)
TDF (or ABC) + 3TC (or FTC) + EFV (or NVP)	AZT + 3TC + DTG	AZT + 3TC + ATV/r (or ATV/c, or LPV/r)	AZT + 3TC + DRV/r (or DRV/s)
AZT + 3TC + EFV (or NVP)	TDF (or TAF) + 3TC (or FTC) + DTG	TDF (or TAF) + 3TC (or FTC) + ATV/r (or ATV/c or LPV/r)	TDF (or ABC) + 3TC (or FTC) + ATV/r (or ATV/c, or LPV/r or DRV/r or DRV/s)
TAF/FTC/BIC	AZT + 3TC + ATV/r (or ATV/c)	AZT + 3TC + DRV/r (or LPV/r, or DRV/s)	AZT + 3TC + DTG

**RAL + LPV/r can be used as second-line ART in adults and adolescents in selected situations.*

Second-line ART regimens for infants and older children*

Failed scheme First line	**Preferred second line scheme**	**Alternative Scheme Two lines**	**Special Situations**
ABC + 3TC + DTG	AZT + 3TC + LPV/r	AZT + 3TC + ATV/r	AZT + 3TC + DRV/r
ABC (or AZT) + 3TC + LPV/r	AZT (or ABC) + 3TC + DTG	AZT (or ABC) + 3TC + RAL	
TDF (or TAF) + 3TC (or FTC) + DTG	AZT + 3TC + LPV/r	AZT + 3TC + ATV/r	AZT + 3TC + DRV/r
ABC (or AZT) + 3TC + EFV	AZT (or ABC) + 3TC + DTG	AZT (or ABC) + 3TC + LPV/r (or ATV/r)	AZT (or ABC) + 3TC + DRV/r
TDF (or TAF) or ABC) + 3TC (or FTC) + RAL	AZT + 3TC + LPV/r	AZT + 3TC + ATV/r (or DRV/r)	AZT + 3TC + DTG
AZT (or ABC) + 3TC + NVP	ABC (or AZT) + 3TC + DTG	ABC (or AZT) + 3TC + LPV/r	ABC (or AZT) + 3TC + ATV/r (or DRV/r)

**ATV/r may be used as an alternative* to *LPV/r in children older than 3 months, but* the *limited availability of suitable dosage forms for children under six years of age, the absence of a fixed-dose dosage form, and the need to separately be considered when choosing this regimen. The introduction of ritonavir as a booster. DRV should not be used in children younger than three years of age, it should be combined with a suitable dose of ritonavir.*

Third-line ART regimens (see *CR "Treatment of HIV infection and comorbid conditions"*).

7. Onthe effectiveness of ART (*see Annex 7.2*)

8. Virological ineffectiveness of ART

Term	Definition
Viral suppression	HV equal to or less than 50 (or 500) copies / ml.
Low-level viremia	One or more detectable viral load results (greater than 50 copies/mL) but equal to or less than 1000 copies/mL.
Virological failure	Continuously detected HV greater than 1000 copies/ml after at least six months of ART use. To confirm the virological failure, it is necessary to re-measure the VN at intervals of 3 months with an increased supporting adherence to ART between measurements.
Discordant response to ART	A situation in which, despite viral suppression, there is no steady increase in the number of CD4 lymphocytes. The immunological effectiveness of ART depends on: - Age; - Baseline CD4 - taking certain drugs (corticosteroids, myelosupressive chemotherapy, etc.); - concomitant diseases.

9. Monitoring and substitution of drugs in connection with the side effects of ARVP (*see Annex 7.3*).

In accordance with the Decree of the Government of the Kyrgyz Republic dated April 6, 2011 N 137

"On approval of the Technical Regulations "On the safety of medicines for medical use", doctors of all OZ are obliged to provide the authorized state body of the Kyrgyz Republic in the field of circulation of medicines with information on any adverse reactions or casesof lack of efficacy of the medicinal product ("yellow" card is filled in by a doctor or pharmacist on paper or online), especially in cases where the side effect is the reaction led to replacement of the ART regimen or to a stop of treatment. Cm. http://www.pharm.kg/ru/farmakonadzor/. In addition, it is recommended to download and use the Med Safety mobile application on your smartphone.

10. The most important interactions of ARVP (see *KR "Treatment* of *HIV infection and comorbid conditions").*)

11. Inflammatory immunity recovery syndrome (VSVI)

- VSVI is a spectrum of clinical signs and symptoms that are associated with the restoration of immunity during ART.
- This is a well-recognized phenomenon that occurs in 10%–30% of individuals embarking on ART, usually within the first 4–8 weeks of starting treatment.
- Low doses of glucocorticoids (20-60 mg / day in terms of prednisone for 2-4 weeks) can mitigate the clinical manifestations of VSVI.
- IT is not recommended to stop ART in case of VSVI.

Annex 7.1 Informed

Consent Form for ART

Patient's full _____

I am aware of (a) that the ART scheme:

_____

is intended for the treatment of HIV infection and is based on the recommendations of the clinical protocol for the treatment of HIV infection, approved by the order of the Ministry of Health of the Kyrgyz Republic.

I am aware of (a) that ART is prescribed for clinical, immunological, virological and epidemiological effects.

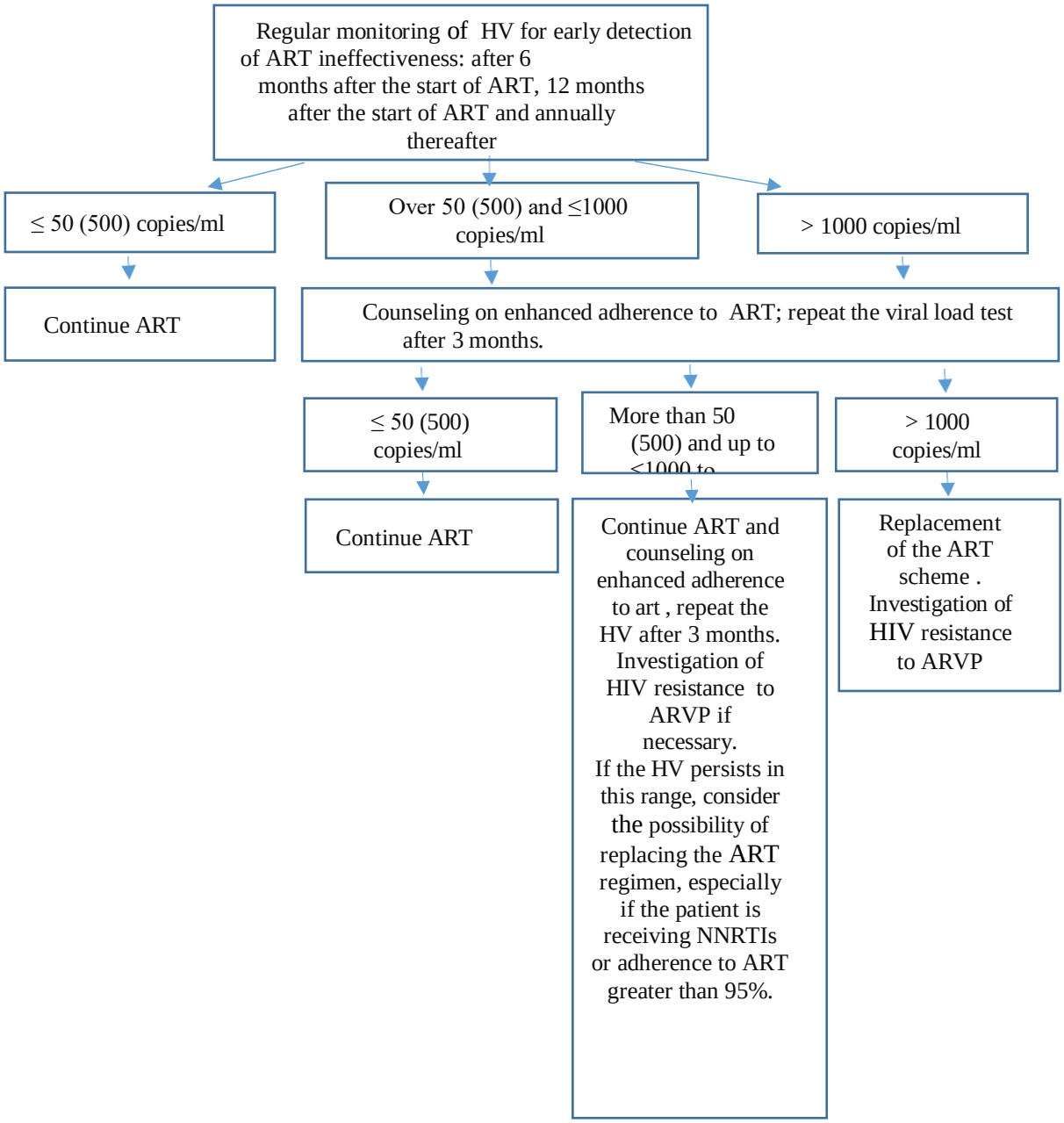
I am aware of (a) that these drugs can cause side effects, including headache, fatigue, nausea, vomiting, diarrhea, etc.

I am aware of (a) that strict adherence to ART is necessary to achieve optimal treatment outcomes, as insufficientadherence to treatment risks hiv drug resistance, lack of treatment effect, disease progression, and increased risk of transmission.

Signature _____ Date _____

Application 7.2

Algorithm Monitoring Efficiency ART



Annex 7.3

Common and/or Serious Side Effects Associated with ART

Side Effects	ARVP class			
	NRTIs	**NNIOT**	**UI**	**AI**
Support-motor apparatus	**TDF:** decreased bone mineral density, osteomalacia, ↑ risk of bone fractures **AZT:** myopathy and rhabdomyolysis			**RAL and DTG:** - ^ KFK, rhabdomyolysis and myopathy or myositis.
Bone marrow	**AZT:** Anemia, neutropenia			
Cardiovascular system	**ABC:** Coronary heart disease	**EFV:** QT extension	**DRV/r and LPV/r**: CHD **ATV/r and LPV/r**: PR lengthening, heart rate change	
Digestive tract	**AZT** more often than other NRTIs: nausea and vomiting		**LPV/r> DRV/r and ATV/r**: nausea and diarrhea. **COBI**: Nausea and diarrhea	**RAL and DTG:** nausea
Skin, including Stevens syndrome-Johnson/toxic epidermal necrolysis	**FTC:** hyperpigmentation of the skin **AZT**: hyperpigmentation of the nails **ABC**: rash	**All NNRTIs:** rash **NVP> EFV:** SSD/TUBULAR ELECTRIC HEATER	**All IPs**: rash **DRV, LPV and ATV:** there are separate reports on SSD/TUB	**All AI**: Rash **RAL:** SSD/TUBULAR ELECTRIC HEATER
Hepatotoxicity	**AZT**: steatosis In the case of withdrawal of TAF, TDF, 3TC and FTC in patients with HBV / HIV or in the case of HBV resistance to these ARVs, severe exacerbation of HBV may develop.	**EFV:** increased activity of transaminases and hepatitis, including fulminant. **NVP:** Severe hepatotoxicity The risk is higher for women with a CD4 count> of 250 cl/mm3 and for men with a CD4 count of >400 cl/^{mm3}. **EFV and NVP** are not recommended for patients with hepatic insufficiency (grade B or C by Child Pugh).	**All IPs**: There are reports of drug hepatitis and hepatic decompensation. **ATV/r:** indirect hyperbilirubinemia and jaundice without damage to hepatocytes, cholelithiasis	**DTG:** hepatitis in patients with HCV or HBV
Genitourinary system	**TDF**: ↓ pSCF, proteinuria, hypophosphatemia, urine phosphate loss,		**ATV/r and LPV/r:** ↓ rSCF **ATV/r and DRV/r:** nephrolithiasis	**DTG, BIC**: ↓ rSCF without

	glucosuria, hypokalemia and metabolic acidosis without anionic rupture. The simultaneous use of TDF with circuits containing RTV increases the risk. **TAF:** Less effect on kidney function than TDF.		**COBI:** ↓ rSCF without reducing glomerular kidney function .	decreased glomerular function of the kidneys.
Nervous system	**AZT**: Peripheral Neuropathy	**EFV**: sleep disorder, dizziness, headache, impaired concentration, depression, psychosis and suicidal thoughts. In most cases, these side effects go away on their own after 2-4 weeks and do not require discontinuation of the drug. Possiblerisk areas include the presence of psychiatric diseases, simultaneous administration of drugs with a psychoneurological effect and an increase in the concentration of EFV due to genetic factors or increased absorption with food.		**All AI: sleep** disorder, headache, depression and suicidal thoughts
Body weight **and body fat**	**AZT**: lipoatrophy **TAF:** weight gain	**EFV:** gynecomastia **EFV:** lipohypertrophy (possible)	**All IPs**: lipohypertrophy (possible)	**All AI:** Weight Gain
Reaction hypersensitivity	**ABC:** contraindicated in patients with HLA-B *5701.	**NVP**: The risk is higher in women who did not receive ARVs with CD4> 250 cl/mm3 and in men with CD4> 400 cl/^{mm3}.		**DTG and RAL**
Metabolism	**AZT and other NRTIs**: dyslipidemia **AZT:** hyperlactathemia **AZT:** Diabetes and Insulin Resistance	**EFV**: dyslipidemia **EFV**: ↓ 25(OH) vitamin D in plasma	**LPV/r> DRV/r and ATV/r:** dyslipidemia **COBI**: dyslipidemia **LPV/r:** Diabetes and insulin resistance	

Annex 7.4

Primary preventive therapy of OI

OI	Testimony	Drugs of choice	Notes
Prophylaxis with co-trimoxazole (adults)	CD4 lymphocyte count <200 cells/mm3 **or** Active tuberculosis	TMP / QMS (cotrimoxazole) 80/400 mg, 2 tablets orally 1 time per day **Alternative mode** TMP / QMS 80/400 mg 1 tablet inside 1 time per day, or TMP / SMK 80/400 mg 2 tablets inside 3 times a week (Monday, Wednesday, Friday)	Prophylaxis may be discontinued in stable patients (CD4 lymphocyte count >200 cells/mm3 for 3-6 months) In patients with TB/HIV, prophylaxis should be carried out at least for the duration of TB treatment.
Prophylaxis with co-trimoxazole (adolescents and children)	All patients under 5 years of age. All patients are 5 years of age or older, if the number of CD4 lymphocytes <200 cells / mm3.	Cm. See table below	Prophylaxis can be discontinued in children older than 5 years, clinically stable, if there are signs of viral suppression and the number of CD4 lymphocytes >200 cells / mm3 for 3-6 months.
Prophylaxis with fluconazole (adults and adolescents). Prophylaxis with fluconazole is not recommended for children.	Positive screening for cryptococcal antigen among people with a CD4 count of <100 cells/^{mm3} (if the lumbar puncture is negative, or if the lumbar puncture excludes cryptococcal meningitis). Whether screening for cryptococcal antigen is not available, primary prophylaxis with fluconazole is indicated for adults and adolescents with HIV whose CD4 lymphocyte count <100 cages/mm^3	Fluconazole 800 mg/day for two weeks, then 400 mg/day for eight weeks and continued maintenance therapy with fluconazole 200 mg/day. The dose of fluconazole in adolescents is 6-12 mg / kg per day before (up to 800-400-200 mg per day).	Prophylaxis may be discontinued in stable patients with viral suppression (CD4 lymphocyte count >100 cells/mm3 for 3-6 months)

Atypical mycobacteriosis (adults and adolescents)	Lymphocyte count CD4 <50/^{mm3} (not recommended if the patient immediately starts ART)	Azithromycin, 1200 mg orally 1 time per week or clarithromycin, 500 mg orally 2 times a day. The dose of drugs in adolescents depends on body weight.	Prophylaxis may be discontinued in stable patients with viral suppression (CD4 lymphocyte count >100 cells /mm3 for 3-6 months).
Atypical mycobacteriosis (children)	CD4 Lymphocyte Count : Children <1: <750/mm3 Children from 1 to 2 years: <500/m^3 Children from 2 to 6 years: <75/mm^3 Children ≥6 years: <50/mm^3	Clarithromycin 7.5 mg / kg (max. 500 mg) orally 2 times a day, or azithromycin 20 mg / kg (max. 1200 mg) orally 1 time per week.	It is not recommended to stop treatment before the age of 2 years. After ≥6 months ART: Children from 2 to 6 years with CD4 >200 cells / mm^3 for 3 months; Children ≥6 years of age at CD4>100 cells/mm3 for 3 months.

Dosage forms and doses of TMP/QMS for children

Dosage form	**The number of tablets or milliliters depending on body weight to take once a day**					**The content of the active substance in tablet for adults (mg)**	**Number of tablets in dependence on body weight**
	3,0–5,9	**6,0– 9,9**	**10,0–13,9**	**14,0–19,9**	**20,0–24,9**	**-**	**25.0–34.9 kg**
Suspension 200/40 at 5 ml	2,5 ml	5 ml	5 ml	10 ml	10 ml	-	-
Tablets 100/20 mg	1	2	2	4	4	-	-
Tablets 400/80 mg	-	0,5	0,5	1	1	400/80 mg	2
Tablets 800/160 mg	-	-	-	0,5	0,5	800/160 mg	1

Annex 7.5

Algorithm of interaction between medical specialists and employees of public organizations to provide ART services.

Purpose:

1. Improved coverage of antiretroviral therapy and viral suppression.
2. Improving the effectiveness of interaction between health organizations (hereinafter referred to as OZ) and non-governmental organizations (hereinafter NGOs) in the field of treatment and care for HIV infection, including ART.

This algorithm should be an annex to the document on cooperation(memorandum, agreement, agreement, etc.) signed between the OZ and the NGO, and includes, among other things, clauses on the observance of confidentiality of information about patients by employees of these organizations.

	Measure	**Synopsis**	**Term**	**Responsible employees**
1	Entry of data into the information system (hereinafter referred to as IP) for all clients receiving services of NGOs.	Data entry in the IP (section "peer-to-peer") is carried out by a doctor / nurse on the basis of documents provided by an NGO employee (originals or copies) that confirm the consent of PLHIV to receive NGO services. Input of data on PLHIV who have dropped out of the NGO service program .	As soon as necessary , but not less than 1 time per quarter.	OZ Doctor/Nurse, NGO Officer
2	PlHIV is informed about the services of NGOs, involvement in the program.	- The NGO provides information to the OZ with a list of services and contact details of employees (poster, brochure, business card, etc.) - Doctors and nurses of the OZ inform all PLHIV about the possibility of obtaining services on the basis of NGOs. - After obtaining verbal consent from PLHIV, the nurse or doctor , in the presence of the patient, contacts the NGO employee and arranges with him and the patient about the time of their meeting. As far as possible, the first meeting takes place in the OZ. - At the first meeting , PLHIV signs a document (contract, agreement, etc.), confirming consent to the provision of services to NGOs.	On an ongoing basis.	Oz doctor and nurse, NGO employee

3	Distribution of services for PLHIV.	The doctor/nurse extracts from the IP impersonal lists of PLHIV (who have agreed to receive services from NGOs) in accordance with the data exchange form* and transmits them to the NGO for further work (the lists depend on the list of services provided by the NGO): - initiation or renewalof ART; - PLHIV who missed receiving ARVs for more than 7 days; - PLHIV who need to be examined for HV in accordance with the clinical protocol; - PLHIV who receive ART for more than 6 months and do not have viral	Until the 5th day of each month monthly monthly quarterly quarterly	Doctor/ Nurse OZ

		suppression (the result is not earlier than 3 months from the start of ART).		
4	Providing services for PLHIV.	Carrying out work according to the received lists by priority.	Within a month	NGO officer
5	Performance monitoring.	A meeting of THE STAFF and NGOs is held (discussion in the format of video or audio communication is possible) for: - verification of PEC and other personal data of clients; - discussing the results of work on previously transmitted lists; - Discussing an agreed work plan for each PLHIV.	As agreed , but at least 1 time per month	Doctor OZ, NGO officer
6	Monitor section occupancy "Peer to peer" in IP.	An employee of the Project of the donor organization (or NGO) provides the RC AIDS with a list of PLHIV receiving the services of NGOs (PEC and / or elisa number and date).	Up to 15 date, month, following about reporting quarter	Project Officer of the Donor Organization (or NGO)
		Employees of the Department of MiO RC AIDS verify the list of PLHIV receiving Services NGO between IP and the lists provided. Providing feedback.	Up to 25 date, month, following the reporting Quarter	Head of the Department of MiO RC AIDS

*** ART data exchange** form

Fields 1 to 9 are filled in by an OZ employee, fields 10 to 12 by an NGO employee.

	1	2	3	4	5	6	7	8	9	10	11	12
	No me er IF A	Date IF A	WEE KEN D	Date of start of la ART First of all, in the life of the	Pos ledn yaya date vozo bnov lazii ya ART	Date of VN on My Fath er's Pray er	The result of the lta t VN on the mom ent fathe r ta	At the rank of re-givin g klie nta in NP O (1, 2, 3, 4)	Date of re-givi ng in NP O	He has AR T with him. on hors e c fathe r tnog o peri oda	With the swor d / the resul t of the lta t rabo you	Sotr udni k NP O, befor e leavi ng the vivs hiy uslu gu

										(YES/NO)		

1 – start/resume of ART; 2 issuance of ARVs; 3 – examination for VN; 4 - achieving viral suppression.