Mission Statement:
The overall purpose of the Ministry of Health and Child Care is to promote the health and quality of life of the people of Zimbabwe. In pursuing this, the Ministry of Health and Child Care is committed to:

Equity: The MoHCC seeks to achieve equity in health by targeting resources and programmes to the most vulnerable and needy in our society.

Primary Health Care: The primary health care approach will be the main strategy for health development.

Priority Health Issues: Priority health problems will be identified and resources will be targeted to alleviating those problems.

Quality Programmes will seek to provide high quality care which is accessible and appropriate.

Health Promotion Programmes will emphasise on health promotion and disease prevention.
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HIV TESTING SERVICES (HTS)

Section contents:

- The 6Cs of HTS 8
- HIV testing algorithm 9
- Pre- and post-test counselling messages 10
- Information before distribution of HIV self-testing kits 11
- HIV self-testing algorithm 12
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All HTS counselling should adhere to the 6Cs:

- Comfort
- Consent
- Correct and accurate HIV test results
- Confidentiality
- Counselling
- Connections to HIV prevention, treatment, care and support services
HIV testing algorithm

Perform 1st screening HIV test using either DETERMINE or SD BIOLINE

If HIV test result is POSITIVE

Confirm HIV test using 2nd test Chembio/first response

If HIV test result remains POSITIVE

REPORT HIV POSITIVE

If 1st and 2nd repeat tests both positive

REPORT HIV POSITIVE

If HIV test result is NEGATIVE

If HIV test result remains HIV positive and 2nd test remains NEGATIVE

Perform the 3rd HIV test using INSTI

If HIV test result is POSITIVE

REPORT INCONCLUSIVE RE-TEST AFTER 14 DAYS

If HIV test result is NEGATIVE

If 1st and 2nd repeat tests both NEGATIVE

REPORT HIV NEGATIVE

All clients tested HIV positive should be re-tested prior to ART initiation.

This should be using a different sample and ideally the tests should be performed by a different health care worker.
Pre- and post-test counselling messages

**PRE-TEST INFORMATION SESSION**
- Identify target group (patients, spouses, parents, caregivers, etc.). Make sure group is comfortable, assure privacy and confidentiality

**KEY AREAS FOR PRE-TEST INFORMATION SESSION:**
- Notify client/s of routine offer of HIV testing & counselling
- Ensure a clear understanding of the benefits of HIV testing and counselling
- Basics of HIV (transmission, prevention, treatment, care and support)
- Testing and counselling as entry point to prevention, treatment, care and support
- Explanation of testing and counselling procedures, possible results and linkages to prevention or treatment
- Disclosure and referral

**PROVIDER ROUTINELY OFFERS HIV TEST INDIVIDUALLY AND CONFIDENTIALLY**
**RECORD ALL CLIENTS IN HTS REGISTER, INCLUDING THOSE WHO OPT OUT**

**IF CLIENT AGREES TO PROCEED, HIV TEST PERFORMED***

**HIV test declined or deferred**
- Offer individual counselling
- Address barriers to testing
- Risk assessment & risk reduction; link with medical care
- Re-offer HIV test
- If client accepts HIV test, proceed with testing
- If client declines/defers HIV test, develop a plan to return for HIV test
- Provide referrals, take-home information

**Subsequent health care visits**
- Review HIV test declined messages; provide referrals where necessary
- Re-offer HIV test

**HIV negative post-test result counselling**
- Provision of result; deal with emotions
- Risk assessment and risk reduction
- Discuss disclosure
- Partner & children referral for HIV test
- Continued medical care
- Provide take-home information

**Emphasis is on “Staying NEGATIVE”.** Link with prevention services (Condoms, VMMC, PreP)

**Subsequent health care visits**
- Review post-test counselling messages
- Re-test according to risk assessment
- Provide referrals

**HIV positive post-test counselling**
- Provide HIV test result; deal with emotions
- Review/conduct risk assessment & risk reduction
- Discuss disclosure
- Partner & children referral for HIV test
- Discuss positive living
- Screen for TB
- Referral to OI clinic
- Referral to other support services
- Provide take-home information

**Emphasis is on “Support and Positive Living”**

**Subsequent health care visits**
- Review post-test counselling messages, provide referrals.

*Follow national HIV testing algorithm. Rapid HIV testing with same-day results is highly recommended.
HIV self-testing (HIVST) is when a person collects his/her own specimen and then performs a test and interprets the results, in private or with someone he/she trusts.

The oral self-test is a triaging test. It does not provide a final HIV diagnosis
Anyone who tests HIV positive using a triaging test must undergo another different test to confirm the diagnosis, prior to being treated for HIV.

Explain:
- How HIV is and is not transmitted
- How the HIVST is able to detect HIV in oral fluid if HIV can’t be transmitted through saliva
- Why people on ART should not use the test
- How it’s possible for sexual partners to have different HIV statuses

Consent to give test kits

Refresher on how to use test kit
- How to read the test result (negative, positive, inconclusive)
- What to do if the test is negative, positive or inconclusive

Explanation of how and why to link to care
- The benefits of being on ART (emotional and physical)
- The benefits of VMMC
- How to present the self-referral card at the clinic

Collection of client information in self-testing M&E tools

Use the HIVST Job Aide and the demonstration video to explain how to use the test to the patient.
HIV self-testing algorithm

Perform HIV self-test
A0*

AO+

Link to health facility for confirmatory testing

AO-

Report HIV negative and link to relevant HIV prevention services

*A0 = the test to be performed
Information when presenting after individual self-test

INTRODUCTION
- Why are you following up (linkage to prevention or confirmatory testing)?
- Affirm client for presenting to the facility or outreach point

ASK ABOUT THEIR EXPERIENCE USING THE TEST
- Any challenges using the test?
- Any challenges interpreting the test?
- Any instances of harm?

IF CLIENT IS REQUESTING LINKAGES FOR PREVENTION
- Explanation of HIV prevention methods
- Referral to VMMC site for men
- Explore and address any barriers to VMMC

IF CLIENT IS REQUESTING CONFIRMATORY TESTING
- Offer HIV testing using the national algorithm
STEP 1
- Client tests HIV positive
- Ask client to consent for partner and family testing

STEP 2
- List all family members on Page 5 of the patient care and treatment book

STEP 3
- Ask client to bring partner and family members to the facility for testing
- Previous partners should be contacted directly by the client or anonymously by the HCW

STEP 4
- If partner and family members are not tested after one month, trigger community-based index client testing

STEP 5
- Perform community-based index client testing through one of these strategies:
  - Health care worker outreach
  - Links with a community-based cadre who is trained to test. This may be through supervised use of self-tests
  - Giving the client self-tests for unsupervised self-testing to be performed at home
## LINKAGES TO PREVENTION, TREATMENT, CARE AND SUPPORT SERVICES

Empower all clients to continue with their risk reduction strategies

### HIV negative
- Screen for TB
- Screen for STIs
- Provide condoms and refer to HIV prevention services, VMMC and cervical cancer screening

### HIV positive
- Discuss need for re-testing before ART initiation
- Link with community health worker or expert client
- Refer for OI and ART services – all clients are eligible for ART
- Screen for TB, STIs and other OIs
- Refer for other services as appropriate (family planning, nutrition and psychosocial support)
- If client does not link to care, use the AIDS and TB referral form to trace the client
# HIV re-testing

## Population

<table>
<thead>
<tr>
<th>General population with ongoing risk behaviours, including:</th>
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<tbody>
<tr>
<td>• People with a known HIV-positive partner</td>
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<tr>
<td>• Individuals seen for diagnosis or treatment of STIs</td>
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<tr>
<td>• People with known recent HIV exposure</td>
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<tr>
<td>• TB patients who are at high risk of HIV exposure</td>
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<td>• OPD patients with OIs</td>
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<tr>
<th>Key populations</th>
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<tr>
<td>Offer re-testing at least annually</td>
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| Re-test according to risk assessment (Suggest 3 monthly) |

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<tr>
<th>HIV-negative pregnant women and lactating women</th>
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<tr>
<td>Re-test previously HIV-negative women in the first trimester of pregnancy and at third trimester/or at delivery</td>
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<td>6 weeks post-natal and 6 monthly during the breastfeeding period. Visits to EPI should be time points where maternal HIV status is reassessed</td>
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<th>HIV-positive individuals before initiation of ART</th>
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<td>Re-test all people newly and previously diagnosed with HIV before they initiate ART</td>
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<tr>
<td>Re-testing should ideally be conducted by a different service provider with a different specimen. However, if there is only one health worker at the facility, they can take another blood sample a few hours apart and re-test</td>
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<th>Individuals on PrEP</th>
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<tr>
<td>Re-test every 3 months</td>
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</table>
Any child who is aged 16 years or older, is married, pregnant, is a parent or who requests HIV testing services is considered to be able to give full informed consent. The consent of a parent or caregiver is required before performing an HIV test on a child who is younger than 16 years.

YOU CAN TEST A CHILD FOR HIV BASED ON THE BEST INTERESTS OF THE CHILD AND MATURE MINOR PRINCIPLES
SEEK ADVICE FROM THE PERSON IN CHARGE OF THE FACILITY

BEST INTERESTS OF THE CHILD
• A child is ill and diagnosis will facilitate appropriate care and treatment
• A child is a survivor of sexual abuse
• A child is sexually active
• A child is concerned about mother-to-child transmission
• A child has been exposed to HIV through vertical or sexual transmission
• A child expresses concern that, given an HIV-positive result, he or she will be denied access to care and treatment by a parent/caregiver

MATURE MINOR
A counsellor should consider the following factors in determining whether a child or adolescent should be treated as a mature minor:
• The minor’s ability to appreciate the seriousness of HTS and the test result, and to give informed consent
• The minor’s physical, emotional and mental development
• The degree of responsibility that the minor has assumed for his or her own life, such as heading a household or living independently from a parent/caregiver
### HTS screening tool for children and adolescents

<table>
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<th>Age Range</th>
<th>Screening Tool Use</th>
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<td>0-5 years</td>
<td>Do not use screening tool. Offer all HTS</td>
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<tr>
<td>5-14 years</td>
<td>Use tool</td>
</tr>
<tr>
<td>15-19 years</td>
<td>Use tool and ask additional questions on STIs</td>
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- Has the child ever been admitted to hospital?
- Has the child had recurring skin problems?
- Has one or both of the child’s natural parents died?
- Has the child experienced poor health in the past three months?
- For adolescents: any symptoms or signs of an STI?

**IF YES TO ANY OF THE ABOVE, OFFER AN HIV TEST**
CONSENT FOR PEOPLE LIVING WITH DISABILITIES

In the case of people with mental health concerns, regardless of age, a guardian should provide informed consent

People living with disabilities, such as hearing and visual impairments, should be provided with appropriate materials to ensure full understanding of the HIV test, results, and prevention, treatment, care and support services
## PREVENTION

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- Eligibility criteria for VMMC 22
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- PrEP in sero-discordant couples 31
- Baseline and monitoring requirements 32
- Treatment regimens for PrEP 33

#### PEP
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- ART for PEP 35
Benefits for men:

- Improves hygiene of the male organ
- Reduces the risk of getting other sexually transmitted infections, such as herpes and syphilis
- Helps prevent cancer of the male organ
- Reduces complications that involve the foreskin, such as inability to retract the foreskin
- Reduces risk of acquiring HIV by 60% in heterosexual sex, in combination with other preventive mechanisms

Benefits for women:

- Reduces chances of contracting the virus that causes cervical cancer (HPV)
- As an indirect benefit, reduces chances of HIV infection to the woman
- Lowers the risk of chlamydial infection, which can cause infertility if it remains undetected
Eligibility criteria for VMMC

- Men and boys above the age of 10 years
- Must not have any contraindications, such as keloids, bleeding, hypospadias or epispadias
- Should provide a signed consent for the procedure
- An HIV test is recommended before the procedure. However, clients are still eligible for MC if they decline a test. Record all results in the HTS register
- All minors below the age of 16 years:
  - Should be issued with their HIV-negative result unaccompanied and then proceed to be circumcised
  - Should be issued with their HIV-positive result in the presence of their parents, caregivers or legal guardians for purposes of linkages to other care services
Counselling prior to VMMC

- Ask clients what they know about male circumcision
- Discuss the benefits, evidence of effectiveness and partial protection of male circumcision
- MC offers only partial protection and has to be used together with other prevention methods
- Circumcised men can still get infected with HIV. Promoting and providing safe male circumcision does not replace other interventions to prevent heterosexual transmission of HIV, but provides an additional strategy
- Circumcised men, if HIV positive, can infect their sexual partners
- Discuss HIV prevention and demonstrate condom use
- Explain surgical and device procedures
- **Discuss importance of review dates:**
  - Surgical: Day 2, 7 and 42
  - Device: Day 7, 14 and 49
- Refer adolescents to the nearest youth centre or organisation(s) for ASRH information & services

ENSURE AND ASSURE CONFIDENTIALITY AND PRIVACY!
Skin preparation for VMMC

**Surgical/device placement:**
- Use 10% povidone-iodine solution or chlorhexidine if allergic to iodine
- Clean the foreskin completely retracted, starting from the glans to the sulcus, inner and outer foreskin ending with scrotal area
- Repeat an additional 2 times
- Let the clean penis lay on a clean gauze
- Wait for 2 minutes before proceeding

**Device removal:**
- Use povidone iodine 10% solution
- First cleaning – before cutting the necrotic tissue
- Second cleaning – after removing necrotic tissue
- Third cleaning – after removal of the two rings

**NB:** Cleaning with povidone iodine 10% will destroy tetanus spores
## WEIGHT-BASED DOSAGING FOR MC ANAESTHESIA

### A. With 2% Lignocaine (Lidocaine)

<table>
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<tr>
<th>Weight in kgs</th>
<th>0.5 % Bupivacaine in mls</th>
<th>Recommended dose Lignocaine 2% in mls (when used with 0.5% Bupivacaine)</th>
<th>Recommended dose Total volume (0.5% Bupivacaine + 2% Lignocaine)</th>
<th>Maximum dose of 2% Lignocaine in mls (when used alone)</th>
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<td>50-59</td>
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<td>7.5ml</td>
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<td>2.5ml</td>
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### B. With 1% Lignocaine (Lidocaine)

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<th>Recommended dose Lignocaine in mls (when used with 0.5% Bupivacaine)</th>
<th>Recommended dose Total volume (0.5% Bupivacaine + 1% Lignocaine)</th>
<th>Maximum dose of 1% Lignocaine when used alone</th>
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<td>5ml</td>
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<td>8ml</td>
<td>9ml</td>
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<td>40-49</td>
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<td>60-69</td>
<td>2.5ml</td>
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<td>18ml</td>
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<td>70+</td>
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<td>10ml</td>
<td>21ml</td>
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WOUND CARE ADVICE

• Keep your penis clean and dry at all times. Avoid disruption of the wound due to physical work, sports or cycling
• Keep penis in upright position at all times to reduce swelling and pain
• Wear clean and well-fitted underwear to provide comfort and support
• Mild swelling and pain is normal, but visit your clinic if swelling or pain worsens
• Go to the VMMC clinic for removal of the bandage on Day 2
• Do not engage in sexual activity or masturbate for at least 6 weeks
• The penis must be immersed in clean salty water twice a day after bandage removal
• Do not apply any medication, ointment, cream or antiseptic to the wound.
• Do not use traditional herbs on the wound
• Keep the wound protected from any contamination with soil, dirt or unclean water
• Stitches should not be removed as they will dissolve on their own
SEVERE ADVERSE EVENTS

Return to clinic urgently if:

- Excessive bleeding
- Excessive pain
- Difficulty and pain when passing urine
- Pus or white liquid from the penis
- Excessive swelling of the penis, including haematoma
- Wound rupture
- Fever a week after circumcision
- Stiffness of the jaw or neck

TETANUS ALERT

When to return immediately:

- Headaches, jaw cramping, muscle spasms
- Difficulties in swallowing
- Fever and sweating
- Jerking/seizures

Any of above symptoms – refer urgently to next level of care
Referrals and linkages post circumcision

For HIV-positive clients, refer to HIV care and treatment services
• Provide client with AIDS and TB referral form

For HIV-negative clients,
• Proceed to MC
• Encourage mutual disclosure and partner testing
• Provide follow-up care:
  • Risk reduction counselling
  • Give information on correct and consistent use of condoms
  • Demonstrate and provide condoms for sexually active clients
  • Promote early treatment and management of STIs
• For adolescents, encourage them to visit nearest youth centre/organisation for more information or services on ASRH
• Behaviour change – Abstinence, Be mutually faithful, Engage in safer sex methods
What you need to know about PrEP?

PrEP:
• Is for people who are at high risk of HIV through sexual contact
• Is taken daily during periods of risk
• Is not for life
• Reduces the risk of HIV infection by 90% when taken consistently and correctly
• Requires strict taking of medication and regular HIV testing
• Works best as part of other HIV prevention methods
• Should be used together with male and female condoms

PrEP does not:
• Prevent STIs
• Prevent pregnancy
• Protect one from HIV after exposure
Indications for PrEP

In Zimbabwe, groups that are likely to be at substantial risk (>3% incidence) of HIV infection include:

- Adolescent girls and young women
- Male and female sex workers
- At-risk men (MSM, prisoners, truck drivers)
- Sero-discordant couples
- Women in relationships with men of unknown status
- Transgender people

Contraindications for PrEP

- HIV-positive status
- Unknown HIV status
- Allergy to any medicine in the PrEP regimen
- Unwilling/unable to adhere to daily PrEP
- Known renal impairment: estimated creatinine clearance <60ml/min

Indications for PrEP by history over the past 6 months:

- HIV negative and sexual partner with HIV who has not been on effective therapy for the preceding 6 months OR
- HIV negative and sexually active in high HIV prevalence settings AND any of the following:
  - Vaginal or anal intercourse without condoms with more than one partner, OR
  - A sexual partner with one or more HIV risk factors, OR
  - A history of an STI by laboratory testing or self-report or syndromic STI treatment, OR
  - Any recurrent use of post-exposure prophylaxis (PEP), OR
  - Requesting PrEP
Practical screening questions for PrEP

Any “yes” answer should prompt a discussion of the risks and benefits of PrEP

In the past 6 months:
• Have you had sex with more than one person?
• Have you had sex without a condom?
• Have you had sex with anyone whose HIV status you do not know?
• Are any of your partners at risk of HIV?
• Do you have sex with a person who has HIV?
• Have you received a new diagnosis of a sexually transmitted infection?
• Do you desire pregnancy?
• Have you used or wanted to use PEP or PrEP for sexual exposure to HIV?

PrEP in sero-discordant couples

Any “no” answer to any of the questions below, may indicate increased risk for HIV infection and indication for PrEP

• Is your HIV positive partner taking antiretroviral therapy (ART) for HIV?
• Has your partner been on ART for more than 6 months?
• At least once a month, do you discuss whether your partner is taking therapy daily?
• If you know when your partner had his or her last HIV viral load test, what was the result?
• Do you use condoms every time you have sex?
• Are you using effective contraception with a HIV-positive partner?
**Baseline requirements for PrEP**

**REQUIRED**
- HIV test negative
- Clinical screening for acute HIV infection
- HIV risk assessment (using a screening tool)
- Adherence counselling

**RECOMMENDED**
(should not hinder access to PrEP):
- Hepatitis B test
- Blood creatinine level check
- Pregnancy test (although unlikely PrEP contraindicated in pregnancy)
- STI screening and treatment

**Monitoring for PrEP**

**REQUIRED**
- After initiating PrEP, the client should be reviewed after 1 month to monitor adherence and side effects, as well as for resupply of medicines
- Ongoing follow up is 3 monthly
- **HIV re-test every 3 months**
- Adherence and risk reduction counselling at every visit
- Side-effects counselling at every visit

**RECOMMENDED**
(should not hinder access to PrEP):
- Blood creatinine – every 6 months
- STI screening and treatment
- Access to contraception/pregnancy screening
### Treatment regimens for PrEP

<table>
<thead>
<tr>
<th></th>
<th>Drug</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred regimen</td>
<td>Tenofovir (TDF) (300mg) plus Emtricitabine (FTC) (200mg)</td>
<td>Fixed-dose combination; one tablet once a day</td>
</tr>
<tr>
<td>Alternative regimens</td>
<td>TDF (300mg) plus 3TC (300mg)</td>
<td>Fixed-dose combination; one tablet once a day</td>
</tr>
</tbody>
</table>

PrEP reaches **maximum effectiveness after 7 daily doses**

### When to stop PrEP

PrEP can be stopped 28 days after the last possible exposure to HIV if the client is no longer at substantial risk for HIV infection.

It should also be stopped if the client:

- Has a positive HIV test
- Develops renal disease (creatinine clearance <60ml/min)
- Has an adverse medicine reaction
- In sero-discordant couples, when the HIV-infected partner on ART has achieved viral suppression
Steps to follow for PEP

Who needs post-exposure prophylaxis (PEP)? The following types of exposures should be considered for post-exposure prophylaxis:

- Needle-stick injury or injury with a sharp object used on a patient
- Mucosal exposure of the mouth or eyes by splashing bodily fluids
- Broken skin exposed to a small volume of blood or secretions, such as may occur with sexual assault (rape, intimate partner violence or sexual abuse)

1. Wash the exposed area thoroughly with soap and water (do not pinch or press wound to try to express blood).
2. Rinse the eye or mouth with plenty of water if contaminated.
3. Report the injury to a senior member of staff or the supervisor.
4. Start ARVs recommended for post-exposure prophylaxis immediately – these should be started within 1 hour if possible and, at the latest, within 72 hours of the exposure.
5. Ascertain the HIV status of the source patient and the injured health worker after providing appropriate counselling.
6. Depending on the results of the HIV tests, the following actions should be taken:
   - HIV positive: Link to care and manage other risks
   - HIV negative: Ascertain status of source
   - HIV positive or UNKNOWN: Continue PEP for one month
   - HIV negative: PEP not required; Manage other risks

- In the event of a health care worker being exposed to HIV infection, the greatest risk of transmission to other individuals is in the first six weeks. The exposed HCW should be instructed to use measures to reduce the potential risk of HIV transmission to others, e.g., condom use, abstinence and refraining from blood transfusion until the 6-month serologic test is negative.
- Health care workers who are breastfeeding should consider stopping breastfeeding following exposure to HIV. This avoids infant exposure to ARVs and HIV in breast milk if the mother is infected.
- Post-exposure prophylaxis with hepatitis B immune globulin (HBIG) and/or hepatitis B vaccination series should be considered for occupational exposure (within 24 hours) after evaluating the hepatitis B status of the source patient and the vaccination status of the exposed person. Hepatitis B vaccine and HBIG can be given at the same time but using different injection sites. Routine pre-exposure hepatitis B vaccination should be offered to all health-care workers. Ideally the hepatitis C status of the source patient should be ascertained.
ART for PEP

**Adult and adolescent PEP**

Tenofovir 300mg orally once daily

PLUS

Lamivudine 300mg orally once daily

PLUS

Atazanavir 300mg/ritonavir 100mg orally once daily

The above regimen is given for one month

**Paediatric PEP**

- AZT + 3TC is recommended as the preferred backbone regimen for HIV post-exposure prophylaxis for children 10 years and younger

- ABC + 3TC or TDF + 3TC (or FTC) can be considered as alternative regimens

- LPV/r is recommended as the preferred third drug for HIV post-exposure prophylaxis for children younger than 10 years

- An age-appropriate alternative regimen can be identified among ATV/r, RAL, DRV, EFV and NVP
SEXUALLY TRANSMITTED INFECTIONS (STIs)

Section contents:

• Steps in the management of STIs 37
• Assessment of a patient with vaginal discharge 38
• Management of vaginal discharge syndrome 39
• Management of lower abdominal pain in women 41
• Management of urethral discharge in men 42
• Management of genital ulcers 43
• Management of inguinal bubo/swelling 45
• Management of acute scrotal swelling 46
• Management of sexual violence 47
Steps in the management of STIs

- Take a full history, including sexual history
- Examine the patient to make the correct diagnosis
- Offer HIV testing to all STI patients
- Explain to the patient how the infection was acquired and how it could be prevented in the future
- Emphasise the need to complete the course of treatment
- Patient to come back if no improvement within 7 days or if symptoms worsens
- Encourage patients to bring their sexual partners for treatment
- Encourage the correct and consistent use of male or female condoms
Assessment of a patient with vaginal discharge

If patient complains of vaginal discharge:

1. Take history (especially sexual history) and determine risk score
2. Do bimanual pelvic exam, pass speculum
3. Clean and inspect cervix
4. Observe nature of vaginal discharge
5. Give health education and prevention messages

Risk Assessment:

<table>
<thead>
<tr>
<th>RISK FACTOR</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner has Urethral discharge</td>
<td>2</td>
</tr>
<tr>
<td>New partner in last 3 months</td>
<td>1</td>
</tr>
<tr>
<td>More than 1 partner in last 3 months</td>
<td>1</td>
</tr>
<tr>
<td>Age less than 21 years</td>
<td>1</td>
</tr>
</tbody>
</table>

If Risk Score 2 or more, treat for Cervicitis
Management of vaginal discharge syndrome

- **No discharge present**
- **Discharge present**
- **Discharge white and curd-like**

**but**

- **At risk of cervicitis**
- **Discharge profuse and/or offensive**
- **At risk of cervicitis**

**Treat for**

- **Gonorrhoea & chlamydia**
- **Gonorrhoea, chlamydia, trichomoniasis & bacterial vaginosis**
- **Gonorrhoea, chlamydia & candidiasis**
Management of vaginal discharge syndrome

Treat for applicable combinations as determined on previous page

<table>
<thead>
<tr>
<th>Condition</th>
<th>First line</th>
<th>Substitute:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonorrhoea</td>
<td>Ceftriaxone 250mg IM single dose</td>
<td>Cefixime 400mg orally as a single dose</td>
</tr>
<tr>
<td></td>
<td>OR Kanamycin 2 grams IM single dose</td>
<td>OR Spectinomycin 2g IM stat</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>Doxycycline 100mg orally twice daily for 7 days</td>
<td>Erythromycin 500mg orally 4 times a day for 14 days</td>
</tr>
<tr>
<td></td>
<td>OR Azithromycin 1g orally as a single dose</td>
<td>OR Ofloxacin 300mg orally twice a day for 7 days</td>
</tr>
<tr>
<td>Trichomonas vaginalis</td>
<td>Metronidazole 2 grams, orally, single dose</td>
<td>Clotrimazol 1% cream, topicaly, twice daily for 7 days</td>
</tr>
<tr>
<td></td>
<td>OR Metronidazole 400mg, orally, three times daily for 5 days</td>
<td>OR Clotrimazol 1% cream, topicaly, twice daily for 7 days</td>
</tr>
<tr>
<td>Candidiasis</td>
<td>Miconazole 2% cream topically twice daily for 7 days</td>
<td>Nystatin cream, topically, twice daily for 7 days</td>
</tr>
</tbody>
</table>

Refer to EDLIZ for more specific dosing information
Management of lower abdominal pain (LAP) in women

1) Are any of the following present?

- Missed/overdue period
- Recent delivery/abortion/miscarriage
- Abdominal guarding and/or rebound tenderness
- Abnormal vaginal bleeding
- Abdominal mass
- Fever of more than 38°C

2a) If YES, refer patient urgently
(Set up an IV line and apply resuscitatory measures if necessary)

2b) If NO, Are any of the following present?

- Vaginal discharge
- Cervical excitation tenderness
- Abdominal tenderness

If yes, treat for PID

- Ceftriaxone 250mg by intramuscular injection
- Doxycycline 100mg orally twice a day for 14 days
- Metronidazole 400mg orally twice a day for 14 days
Management of urethral discharge syndrome (UDS)

**If urethral discharge present**

**Treat for both gonorrhoea and chlamydia**

**Gonorrhoea**

- **First line:** Ceftriaxone 250mg IM, single dose
- **Substitute:** Kanamycin 2 grams IM, single dose
  - OR
  - Cefixime 400mg orally, single dose
  - OR
  - Spectinomycin 2 grams IM, single dose

**Chlamydia**

- **First line:** Doxycycline 100mg orally twice daily for 7 days
- **Substitute:** Azithromycin 1 gram orally, single dose
  - OR
  - Erythromycin 500mg orally 4 times a day for 7 days
  - OR
  - Ofloxacin 300mg orally twice a day for 7 days

Refer to EDLIZ for more specific dosing information
Management of genital ulcers in men and women

• Treat for syphilis and chancroid
• Provide treatment for genital herpes
• Advise on basic care of the lesion (keep dry and clean)
• Aspirate any fluctuant glands through normal skin (surgical incision should be avoided)
• Promote and provide condoms
• Offer HIV counselling and testing
• Advise the patient to return in 7 days if not fully healed or sooner if clinical condition becomes worse
• Assist with the management of sexual partners
Treatment of genital ulcer syndrome in men and women

If genital ulcer (s) or sore(s) present, treat for syphilis, chancroid and HSV-2

### Syphilis
Benzathine penicillin 2.4 million units by single intramuscular injection

**Note:** For patients with a positive syphilis test and no ulcer, administer the same dose at weekly intervals for a total of 3 doses

**If pregnant, breastfeeding or under 16 years:**
Benzathine penicillin 2.4 million units by single IM injection
OR
Erythromycin 500mg orally, 4 times a day for 14 days

### Chancroid
Ciprofloxacin 500mg orally twice a day for 3 days

**If pregnant, breastfeeding or under 16 years:**
Erythromycin 500mg orally 4 times a day for 7 days
OR
Azithromycin 1g orally as a single dose
OR
Ceftriaxone 250mg as a single intramuscular injection

### Genital herpes
Primary infection
Aciclovir 400mg orally 3 times a day for 7 days
OR
Acyclovir 200mg orally 5 times a day for 7 days

If recurrent infection
Aciclovir 400mg orally 3 times a day for 7 days
OR
Acyclovir 200mg orally 5 times a day for 7 days

**If pregnant, breastfeeding or under 16 years:**
Use acyclovir only when benefit outweighs risk. Dosage is the same as for primary infection
Management of inguinal bubo/swelling in men and women

**Inguinal/femoral bubo present** + **Ulcer(s) present**

Treat for

**Lymphogranuloma venereum, chancroid & syphilis**

**Inguinal/femoral bubo(s) present** but **No ulcer present**

Treat for

**Lymphogranuloma venereum & chancroid**

---

**Chancroid**

**First line**
Ciprofloxacin 500mg orally twice a day for 3 days
OR
Erythromycin 500mg orally 4 times a day for 7 days

If pregnant, breastfeeding or under 16 years:
Erythromycin 500mg orally, 4 times a day for 14 days (covers chancroid and LGV)

**LGV**

Doxycycline 100mg orally, twice a day for 14 days
Management of acute scrotal swelling

If scrotal swelling and/or pain present

Treat for gonorrhoea and chlamydia

If scrotal swelling and/or pain present

PLUS testis rotated/elevated

Refer urgently for surgical assessment
Management of sexual violence

- Many people delay seeking services for sexual and gender violence offences
- Health care workers should sensitise their local community and police services about the services that may be provided

1. Ascertain history, carry out medical examination
2. Test for HIV
3. Give patient prophylactic medications: emergency contraception, PEP for HIV, STI presumptive treatment within 72 hours
4. HBV vaccine within 24 hours
   Refer to guidelines for doses of medications
5. Manage or refer to next level of care
# Antiretroviral Treatment in Adults

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- **When and What to start for first line ART**
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- **Antiretroviral side effects**
  - Page 50
- **Antiretroviral medicine interactions**
  - Page 52
- **Baseline investigations**
  - Page 53
- **Differentiated ART initiation**
  - Page 54
- **Counsellors’ ART initiation checklist**
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- **Clinicians’ ART initiation checklist**
  - Page 56
- **ART follow-up schedule**
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- **Standard operating procedure for defaulter tracing**
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- **Decision framework for differentiating ART delivery**
  - Page 60
- **Differentiated ART for stable adults**
  - Page 61
    - **Eligibility criteria for stable clients**
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    - **Checklist for a clinical review visit**
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    - **SOP for clinical and refill documentation**
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  - **Options for differentiated ART delivery**
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    - **SOP for “Fast track” – Facility-based individual refill from pharmacy**
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    - **SOP for “Outreach” – Community-based individual ART delivery through mobile outreach**
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    - **SOP for “CARG” – Community-based client-led group refill**
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    - **SOP for “Family” member refill**
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  - **Definition of treatment failure**
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  - **Routine viral load monitoring algorithm**
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  - **How to prepare a VL DBS**
    - Page 75
  - **Acting on viral load results**
    - Page 76
  - **What to start for second line ART**
    - Page 77
### When to start ART

All clients are eligible to start ART regardless of CD4 or age.

### What to start: first-line ART

<table>
<thead>
<tr>
<th>Preferred first-line regimen</th>
<th>Alternative regimens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescents (10-19 years) ≥35kg</td>
<td>TDF + 3TC + EFV</td>
</tr>
<tr>
<td>Adults, including pregnant &amp; breastfeeding women, TB/HIV, HBV/HIV</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Antiretroviral side effects

<table>
<thead>
<tr>
<th>MEDICINE</th>
<th>SIDE EFFECTS</th>
<th>RISK FACTORS</th>
<th>ACTION TO BE TAKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nucleotide/nucleoside reverse transcriptase inhibitors (NRTIs)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tenofovir (TDF)</strong></td>
<td>Renal complications</td>
<td>Underlying renal disease; age &gt;50 years; untreated diabetes and hypertension; concomitant use of nephrotoxic medicines or PI</td>
<td>Monitor creatinine; substitute with zidovudine</td>
</tr>
<tr>
<td></td>
<td>Decreases in bone mineral density</td>
<td>Vitamin D deficiency; risk factors for osteoporosis or bone mineral density loss</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other SE: gastrointestinal (GI) symptoms, rash</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Zidovudine (AZT)</strong></td>
<td>Anaemia, neutropenia, lipoatrophy, lipodystrophy, myopathy, headache, lactic acidosis</td>
<td>CD4 &lt;200 cells/mm³ Anaemia at baseline</td>
<td>Monitor full blood count; if severe anaemia, change to tenofovir (TDF) or abacavir (ABC)</td>
</tr>
<tr>
<td><strong>Lamivudine (3TC)</strong></td>
<td>Usually nil</td>
<td></td>
<td>Withdraw medicine immediately; give alternative like tenofovir (TDF) or zidovudine (AZT). Do not restart medicine, as this can be fatal</td>
</tr>
<tr>
<td><strong>Abacavir</strong></td>
<td>Severe hypersensitivity reactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-nucleoside reverse transcriptase inhibitors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Efavirenz (EFV)</strong></td>
<td>Central nervous system symptoms (dizziness, confusion, convulsions, headache, sleep disturbance, abnormal dreams) or mental symptoms (anxiety, depression, mental confusion) usually during the first three weeks and then resolve</td>
<td>Underlying hepatic disease or concomitant use of hepatotoxic medicines</td>
<td>Monitor; withdraw medicine if symptoms are severe</td>
</tr>
<tr>
<td></td>
<td>Hepatotoxicity</td>
<td></td>
<td>Withdraw EFV and substitute with boosted PIs</td>
</tr>
<tr>
<td></td>
<td>Gynaecomastia</td>
<td>Risk factors unknown</td>
<td>Substitute efavirenz (EFV) with nevirapine (NVP)</td>
</tr>
<tr>
<td><strong>Nevirapine (NVP)</strong></td>
<td>Liver toxicity, abnormal liver function tests (LFTs) Mild or severe skin rashes (e.g., Stevens-Johnson syndrome [rare]), fever, fatigue, nausea</td>
<td>Underlying hepatic disease or concomitant use of hepatotoxic medicines High baseline CD4 cell count (&gt;250 cells/mm³ in women and &gt;400 cells/mm³ in men)</td>
<td>If LFTs are suggestive of hepatitis or if jaundice is present, discontinue; if rash is severe, discontinue and replace with efavirenz</td>
</tr>
</tbody>
</table>
# Antiretroviral side effects

<table>
<thead>
<tr>
<th>MEDICINE</th>
<th>SIDE EFFECTS</th>
<th>RISK FACTORS</th>
<th>ACTION TO BE TAKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protease inhibitors (Pis)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atazanavir (ATV/r)</td>
<td>Jaundice, nausea, diarrhoea, headache, hyperbilirubinaemia</td>
<td></td>
<td>Monitor; withdraw medicine if symptoms are severe</td>
</tr>
<tr>
<td>Lopinavir/ritonavir (LPV/r)</td>
<td>Hepatotoxicity, Pancreatitis, Hyperlipidaemia, GI intolerance, diarrhoea, hyperglycaemia, lipodystrophy</td>
<td>Underlying hepatitic disease, Advanced HIV disease and alcohol misuse, Obesity, diabetes</td>
<td>Give loperamide for the diarrhoea</td>
</tr>
<tr>
<td>Darunavir (DRV/r)</td>
<td>Hepatotoxicity, Severe skin and hypersensitivity reactions</td>
<td>Underlying hepatic disease or concomitant use of hepatotoxic medicines, Sulfonamide allergy</td>
<td>Monitor; withdraw medicine if symptoms are severe</td>
</tr>
<tr>
<td><strong>Integrase inhibitor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raltegravir (RAL)</td>
<td>Mood changes, depression, myopathy, skin reactions, e.g., Stevens-Johnson syndrome</td>
<td></td>
<td>Monitor; withdraw medicine if symptoms are severe</td>
</tr>
<tr>
<td>Dolutegravir (DTG)</td>
<td>Hepatotoxicity and hypersensitivity reactions</td>
<td>Underlying liver disease</td>
<td>Monitor; withdraw medicine if symptoms are severe</td>
</tr>
</tbody>
</table>
## Antiretroviral medicine interactions

<table>
<thead>
<tr>
<th>ARV MEDICINE</th>
<th>KEY INTERACTIONS</th>
<th>SUGGESTED MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efavirenz (EFV)</td>
<td>EFV may lower the efficacy of some long-acting hormonal contraceptives</td>
<td>Use alternative or additional contraceptive methods, e.g., condoms</td>
</tr>
<tr>
<td></td>
<td>Amodiaquine (anti-malarial)</td>
<td>Use alternative anti-malaria drug</td>
</tr>
<tr>
<td>Nevirapine (NVP)</td>
<td>Rifampicin</td>
<td>Substitute nevirapine (NVP) with efavirenz (EFV)</td>
</tr>
<tr>
<td></td>
<td>Ketoconazole and Itraconazole</td>
<td>Use alternative anti-fungal drug</td>
</tr>
<tr>
<td>Boosted PIs (ATV/r, LPV/r and DRV/r)</td>
<td>Hormonal contraceptives</td>
<td>Use alternative or additional contraceptive methods</td>
</tr>
<tr>
<td></td>
<td>Rifampicin</td>
<td>Substitute rifampicin with rifabutin if available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For children, adjust dose of LPV/r or substitute with three NRTIs</td>
</tr>
<tr>
<td></td>
<td>Tenofovir (TDF)</td>
<td>Monitor renal function</td>
</tr>
<tr>
<td>Dolutegravir (DTG)</td>
<td>Carbamazepine, phenobarbital and phenytoin</td>
<td>Use alternative anti-convulsants</td>
</tr>
</tbody>
</table>
Baseline investigations

- Urine dipstick (glucose, protein)
- Haemoglobin or FBC
- ALT, creatinine
- Pregnancy test
- CD4 count for immunologic staging
- Cryptococcal antigen screening for adults with CD4 count <100 cells/mm³
- RPR or VDRL to screen for syphilis if 12 years or older
- HBsAg to screen for hepatitis B infection and hepatitis C serology

Lack of access to baseline investigations should not delay initiation of ART

**BUT**
ensure the client has been screened for TB and symptoms of severe OIs
4 steps of Differentiated ART initiation

**STEP 1**

**HIV and ART education**
- Give basic HIV and ART education
- (See Page 106-124 Job Aide)

**STEP 2**

**Clinical readiness, clinical history, examination and investigation**
- **Clinically ready, asymptomatic** and POC baseline CD4 >100 cells/mm³ (or CD4 screening at baseline is not available)
- **Clinically NOT ready**
  - Asymptomatic and POC baseline CD4 <100 cells/mm³
  - OR
  - Symptomatic and requires further investigation and clinical management
- Screen for Cryptococcal disease
- Screen for TB according to the TB screening algorithms
- Manage clinical condition

**STEP 3**

**Psychosocial readiness**
- Complete counsellors’ ART initiation checklist
  - Page 55 Job Aide

**STEP 4**

**Treatment plan**
- **Clinically and psychosocially ready**
  - Offer rapid initiation
- **Psychosocially ready but clinical reason for delay** (e.g. TB, cryptococcal disease) delay ART initiation according to clinical guidelines
- **Clinically ready but psychosocial reason for delay**
  - Give further counselling
  - Use counselling tools and link to expert client where possible
  - Aim to start within one week of diagnosis
### COUNSELLORS’ ART initiation checklist

**Assess readiness to start**
- Ask patient what would be the 3 most important reasons for them stay healthy and alive
- Assess willingness to start ART

**Recap knowledge of ART education session (Page 113, Job Aide).**
- For each of the drugs, know the name, frequency and side effects that might occur
- Use of herbs: Why it’s important to stick to ARVs as a treatment
- Why it is important to come on the review date given, and what to bring (all remaining medications)
- What to do in case of travel

**Plan with patient how they will take the drugs:**
- What would be best timing for you to take your drugs, taking into account your daily habits?
- What tools will you use to remind yourself to take your drugs (alarm, time you leave for school)?
- Where will you store your drugs?
- Where will you keep extra doses in case you are out of the house?
- How will you manage missed doses?
- What will you do in case of side effects?

**Explain follow-up plans:** At the beginning of ART treatment, your follow up will be quite intense (D14 if on NVP regimen or initiated on same day as testing, M1, M2, M3), but appointments will be more spaced out with time. We will discuss options for long-term follow up at later counselling sessions

**Ask for their consent to be called or traced if they miss an appointment**

**Document your findings and refer to clinician**
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Has HIV testing been confirmed with a repeat-test, on a different sample, ideally by a different health care worker?</td>
</tr>
<tr>
<td>2</td>
<td>Does the client have sufficient understanding about HIV and ART, and is the client psychologically ready to start ART?</td>
</tr>
<tr>
<td>3</td>
<td>Screen again for TB</td>
</tr>
<tr>
<td>4</td>
<td>Ensure all OIs and other infections have been screened for (cryptococcal disease if CD4 &lt;100 cells/mm³; STI) and treated</td>
</tr>
<tr>
<td>5</td>
<td>Examine the client</td>
</tr>
<tr>
<td>6</td>
<td>Review the baseline laboratory tests</td>
</tr>
<tr>
<td>7</td>
<td>Choose a regimen</td>
</tr>
<tr>
<td>8</td>
<td>Review potential side effects of the medication</td>
</tr>
<tr>
<td>9</td>
<td>If all of the above steps have been checked and the client is ready, initiate ART</td>
</tr>
<tr>
<td>10</td>
<td>Enter the client in the chronic ART register or send the patient care and treatment booklet for entry into the EPMS</td>
</tr>
</tbody>
</table>
# ART follow-up schedule

<table>
<thead>
<tr>
<th>D0</th>
<th>WK 2</th>
<th>MTH1</th>
<th>MTH 3</th>
<th>MTH 6</th>
<th>MTH 7</th>
<th>MTH 9</th>
<th>MTH 12</th>
<th>LONG-TERM FOLLOW UP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLINICAL</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td>If patient remains virologically suppressed continue with patients refill option.</td>
</tr>
<tr>
<td>Complete ART initiation checklist</td>
<td></td>
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<td></td>
<td></td>
<td>Review first VL result CHOOSE REFILL OPTION.</td>
<td></td>
<td></td>
<td>3-monthly supplies of ARVS and cotrimoxazole should be given. If monitored with viral load, see for clinical review yearly.</td>
</tr>
<tr>
<td>If on a NVP-based regimen or Had same-day initiation</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>If no viral load, see for clinical review every 6 months.</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>If not virologically suppressed follow the viral load algorithm.</td>
<td></td>
</tr>
<tr>
<td><strong>COUNSELLING</strong></td>
<td></td>
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<td></td>
<td>Adherence should be assessed by the nurse at each clinical visit. At refill visits, peer support for adherence is given by the group members if the refill system is in a club or CARG.</td>
<td></td>
</tr>
<tr>
<td>Complete readiness assessment</td>
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<td></td>
<td>After month 6, clients should see the counsellor only if a red-flag sign is picked up by the nurse, or if client attends late, or has a high viral load.</td>
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<td></td>
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</tr>
<tr>
<td><strong>LABORATORY</strong></td>
<td>CD4, Cr if on TDF, Hb if on AZT</td>
<td>Hb if on AZT</td>
<td>VL</td>
<td>VL</td>
<td>Viral load yearly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creatinine (TDF), HB (AZT), ALT (NVP) should be checked if there is any suspicion of side effects.</td>
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</tr>
</tbody>
</table>
## ART follow-up schedule – special considerations

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>LONG TERM FOLLOW UP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PREGNANT WOMEN</strong></td>
<td>Pregnant or breast feeding women initiating ART as part of PMTCT undergo rapid initiation on the same day as testing. They should then be seen at week 2, month 1 and then monthly while they are attending for ANC and PNC/bringing the exposed baby monthly. As described in Section 1.4. this should be offered as an integrated one-stop service. A counselling session is given at week 2 to ensure more detailed HIV and ART education is given. Counselling follow up is adapted to the changing motivation for taking ART over time; discussion on delivery; infant testing and infant feeding should be included at the appropriate time.</td>
</tr>
<tr>
<td><strong>CHILDREN</strong></td>
<td>Infants up to 2 years old should be reviewed monthly. Thereafter children should be seen every 3 months. THIS IS BECAUSE THE DOSE MUST BE ADJUSTED FOR THE WEIGHT. For children, follow the adult counselling schedule until month 6 and then see them 3 monthly until full disclosure is achieved. Plan to group your children on the same day each week/month. This automatically allows for peer support to enhance adherence.</td>
</tr>
<tr>
<td><strong>ADOLESCENTS</strong></td>
<td>If starting on adult doses, adolescents can follow the routine follow-up schedule as above for the first year. The counselling content should be adapted to their particular needs (SRH, coping with school, starting new relationships etc.).</td>
</tr>
</tbody>
</table>
Standard operating procedure for defaulter tracing

- At enrolment, clients should be asked if they agree to consent to tracing. Their decision should be clearly indicated on page 2 of the patient care and treatment booklet.

- All sites should have an appointment system for HIV-positive clients. In primary care clinics, all clients should be booked in the same clinic diary. In larger facilities, each clinic (OI, MCH, TB) will have their own appointment diaries.

- The nurse in charge of the clinic must be clear which staff member (nurse, nurse aid, PC, receptionist) is responsible for updating the diary on a daily basis and for initiating the defaulter tracing process.

- All clients registered for ART preparation, ART and PMTCT (including the HIV exposed infant) services should be given an appointment date, which is recorded in the EPMS or clinic appointment diary. In some sites, it may be appropriate to give a booked time (morning or afternoon), as well as a day in order to stagger appointments. If group club refills are implemented, the group number should be recorded in the appointment diary and a booked time for the group allocated.

- The OI number, client’s name, telephone number and the reason for the next appointment (clinical consultation +/- counselling, refill for drugs, blood draw for VL) should be listed in the diary.

- The diary or EPMS list can be used to pull the patient care and treatment booklets the day before and also to pre-pack refills in larger sites.

- When the client arrives, it should be marked off in the diary that they have attended.

- At each visit, whoever is registering the client should check that an up-to-date phone number is available and is documented in the EPMS or appointment diary.

- If the client does not attend for their appointment, their patient care and treatment booklet should be kept aside in a tray or shelf allocated for late-attenders. Tracing is not triggered immediately and patients’ files coming 1-3 days late should be found in this tray.

- If the client has not attended for three days, the client should be traced. All clients, when first registered, should give consent to be traced.

- For each patient to be traced, an AIDS and TB programme referral form (Appendix 1 OSDM) should be completed and given to the appropriate staff member to carry out the tracing. If just phone tracing is required, this may be done by the nurse; if phone or home visit is required, this may be done by the primary counsellor, village health worker or other CBO/expert client representative. Who is performing the tracing should be clear within the health centre human resource management structure.

- Files for patients being traced should be placed in a “tracing” tray.

- Tracing should be carried out as follows:
  - If a phone number is recorded, phone the client with the clinic phone. If not reachable on first attempt, try again on two subsequent days.
  - If there is no phone number or no response on phoning, proceed to visit at home.
  - If client or relative is not found at home, attempt again after seven days, and then monthly until three months from the referral for tracing.
Decision framework for differentiating ART delivery

**STEP 1**
Situation Analysis
- Use the tool in Appendix 4 to guide your assessment
- Assess facility level retention and workload data.
- If possible disaggregate data by age and subpopulation
- Assess challenges being faced by your health care workers
- Assess challenges being faced by clients in your facilities

**STEP 2**
Define challenges for each facility
- What are the common challenges
- What are challenges specific to certain facilities or client subpopulations

**STEP 3**
Define the priority subpopulation
- Define the priority subpopulation/s for whom ART should be differentiated
- What is the districts priority in the next six months?

**STEP 4**
Design a model of ART delivery
- Ask the following questions
  - Is the maximum refill (3 months) being offered?
  - Could ART be offered on additional days of the week?
  - Could opening hours be extended for provision of ART refills?
- Design a model of ART clinical and counselling follow up:
  - Clinical consultation.
    - When
    - Where
    - Who
    - What
  - Counselling consultation.
    - When
    - Where
    - Who
    - What
- Define steps for ART refills:
  - For **stable clients** choose a refill option that addresses the local challenges.
  - For **other subpopulations** design a refill model to address their particular needs.

**STEP 5**
- Implement the differentiated ART delivery model
- Evaluate it's impact
- Consider further adaptations to differentiated ART delivery to address other identified challenges
**Eligibility and frequency of follow up for differentiated ART delivery for stable adult clients**

A stable client on ART (first or second line) is defined as someone who:

### Where viral load is available:

**Eligibility:**
- Has no current OIs
- Has a VL <1000 copies/ml
- Is at least 6 months on their current regimen

**Frequency of follow up:**
- For adults, perform clinical assessment and repeat VL **once every 12 months**
- **3-month refills of ART and cotrimoxazole** should be provided

### Where viral load is NOT available:

**Eligibility:**
- Has no current OIs
- Has a CD4 >200 cells/mm³
- Is at least 6 months on their current regimen

**Frequency of follow up:**
- For adults, perform clinical assessment and repeat CD4 **once every 6 months**
- **3-month refills of ART and cotrimoxazole** should be provided
Checklist for action at a clinical review visit

- Is the weight increasing or stable? Assess nutritional status and screen for TB
- What family planning method is being used or is the client now pregnant?
- Screen for TB: Is TB preventive therapy due?
- Screen for STIs
- Take blood pressure and screen for depression
- Are there any other complaints today?
- Are there any side effects of the medication being prescribed?
- Check adherence to medications (not just the ART!)
- Are there any blood results, viral load, creatinine, etc. that should be documented and reviewed today? If yes, have I acted on them?
- Are there any blood tests that should be ordered today?
- Prescribe medications (cotrimoxazole and ART) needed for today and complete documentation for subsequent ART refills
- Whatever the refill option chosen, complete the patient care and treatment booklet and patient notebook as shown on pages 63-66 of the Job Aide
Standard operating procedure for documentation of the clinical visit

**Documentation in patient care and treatment booklet**

- Column 2 now indicates the code for the type of ART refill model the client has selected.
- For today's clinical visit, complete all columns.
- To prescribe medication for subsequent one (if no VL monitoring) or three (where VL monitoring) refills, complete columns 11, 20a and 25.

### Table Example

<table>
<thead>
<tr>
<th>Visit No.</th>
<th>Date of review</th>
<th>Weight (kg)</th>
<th>Height (cm)</th>
<th>Pregnancy/Lactating Status</th>
<th>Visit Type (use codes below)</th>
<th>Functional Status (use codes below)</th>
<th>No. TR Refill Status (use codes below)</th>
<th>OI/ART Number</th>
<th>Drug Status</th>
<th>Reactions</th>
<th>% Adherence</th>
<th>Refills</th>
<th>Other (specify)</th>
<th>Date of dispensed ART (curves)</th>
<th>Other (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>2/12/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Medical Codes

- **1a**: TB status not assessed
- **1b**: Active on treatment
- **1c**: Lost to follow up
- **1d**: Patient Opted Out
- **1e**: End of PMTCT

### Adverse Events Codes

- **3a**: Fever
- **3b**: Headache
- **3c**: Cough
- **3d**: Pneumonia
- **3e**: Dementia
- **3f**: Jaundice

### ARV Reason Codes

- **13a**: HIV positive child regardless of CD4 count or clinical staging*
- **13b**: Other reason to start
- **13c**: Children between 24-59 months CD4 % <25%
- **13d**: Children Pediatric WHO stage 3 and 4*

### ARV Table

- **1a**: AZT + 3TC + EFV
- **1b**: AZT + 3TC + NVP
- **1c**: TDF + 3TC + EFV
- **1d**: TDF + 3TC + LPV/r
- **1e**: TDF + 3TC + NVP
- **1f**: ABC + DDI + ATV/r

### Follow-up Status Codes

- **25a**: Active on treatment
- **25b**: Lost to follow up greater than or equal to 3 months
- **25c**: Patient Opted Out
- **25d**: End of PMTCT
Standard operating procedure for documentation of the clinical visit

Documentation in patient notebook

1/1/16
TDF/3TC/EFV (po) 3/12
CTX 960 mg (po) 3/12

Repeat above prescription on 25/3/16

17/6/16

9/9/16

TCB for clinical review and VL 2/12/16
Standard operating procedure for documentation of refill visit

Documentation in patient care and treatment booklet

- Fill or tick off columns 1, 11, 20b, 26, 27, 28 to show that the patient has attended and the refill has been dispensed.
Standard operating procedure for documentation of the refill visit

Documentation in patient notebook

1/1/16
TDF/3TC/EFV (po) 3/12
CTX 960 mg (po) 3/12

Repeat above prescription on 25/3/16

17/6/16
9/9/16

TCB for clinical review and VL 2/12/16
Options for differentiated ART delivery for stable adults

Whenever a patient presents with a high viral load or other indication of challenges to adherence (late appointments, mental health issues), ensure referral for enhanced adherence and clinical follow up.
“FAST TRACK” – Facility based Individual Refill from pharmacy

**WHEN?**
Every 3 months
Any time during opening hours

**WHERE?**
Direct from dispensing point

**WHO?**
The client does not see the nurse, only the ART dispenser

**WHAT?**
ART and CTX refill only

**Clinical review is annual if VL available; Twice yearly if VL not available**

**STEP 1**
- Ideally the day before use the EPMS appointment list or patient appointment diary to pull out the patient care and treatment books for the next day.
- Identify which clients are receiving ART in the fast-track model.

**STEP 2**
- For clients in the fast-track model, send the patient care and treatment books to the dispensing point.

**STEP 3**
- Client attends on day of refill appointment any time during clinic opening hours.
- Client attends the dispensing point directly.
- Client does not have individual nurse assessment unless patient requests.

**STEP 4**
- Dispenser provides refill as prescribed, and completes patient care and treatment book and patient notebook according to the refill documentation (See page 65 and 66 of Job Aide).

**STEP 5**
- The patient care and treatment book is sent to the data clerks for entry into EPMS.
- At paper-based sites, the next refill date is written into the appointment diary.
- If any client does not collect medication as per their appointment, the standard defaulter tracing system should be triggered (See page 59 of Job Aide).
**“CLUB REFILL” – Facility based health care worker led Group Refill**

### WHEN?
Every 3 months
At fixed meeting time for the group

### WHERE?
Refill takes place in room allocated for group refills

### WHO?
The group can be facilitated by a nurse, primary counsellor or expert client

### WHAT?
Group discussion and peer support
ART and CTX refill
If lay worker distributing ART, must be pre-packed

### WHEN?
Every 3 months
At fixed meeting time for the group

### WHERE?
Refill takes place in room allocated for group refills

### WHO?
The group can be facilitated by a nurse, primary counsellor or expert client

### WHAT?
Group discussion and peer support
ART and CTX refill
If lay worker distributing ART, must be pre-packed

### STEP 1
- The day before use the EPMS appointment list or patient appointment diary to identify which groups are attending the next day.
- Pull the patient care and treatment books for groups identified.

### STEP 2
- In settings where a lay cadre will distribute ART to the group (or where the team feels that pre-packing of medication will facilitate dispensing in the group room by the nurse), send the patient care and treatment books to the dispensing point for ART to be dispensed and pre-packed in patient-named bags.

### STEP 3
- At the time of the refill, the patient care and treatment books and dispensed pre-packed medication should be sent to the group meeting room.
- The clients in the group attend at the specified time for their group.
- If any clinical problem is identified, they are referred to see the nurse. This may be in the OI clinic or where the nurse facilitates the group, she may also consult directly if there is privacy.

### STEP 4
- Facilitated discussion is held for 30-45 minutes.
- The HCW distributes ART to the clients.
- The HCW distributing the medication should complete the patient care and treatment book as indicated in the refill SOPs (See page 65 and 66 of Job Aide).

### STEP 5
- The patient care and treatment books are sent to the data clerks for entry into EPMS.
- The next refill date for the group, indicating the group number, is written into the appointment diary.
- If any client does not collect medication as per their appointment, the standard defaulter tracing system should be triggered (See page 59 of Job Aide). Group members themselves may be used to facilitate tracing.

Clinical review is done as a group. Annual if VL available; Twice yearly if VL not available
“OUTREACH” – Community based individual ART delivery through mobile outreach

**WHEN?**
Every 3 months
At fixed date and time

**WHERE?**
At fixed mobile outreach site

**WHO?**
The nurse

**WHAT?**
ART and CTX refill only

**STEP 1**
- The day before use the EPMS or patient appointment diary to pull the patient care and treatment books for clients booked for mobile outreach.

**STEP 2**
- Care and treatment books are used to prepare ART medication for outreach.
- If pre-packing, label medication with name of client and place all medication in a bag with client’s name.

**STEP 3**
- Patient care and treatment books, ART and cotrimoxazole medication are transported to the mobile outreach site.
- Patients attend at the designated outreach site and are seen individually either by the nurse or lay cadre.

**STEP 4**
- ART may be dispensed by the nurse who completes the patient care and treatment book according to the refill SOP (See page 65 and 66 of Job Aide).
- If pre-packed, ART may be distributed by the primary counsellor or other lay worker supporting the outreach activity. The distributor must complete the patient care and treatment book according to the refill SOP (See page 65 and 66 of Job Aide).

**STEP 5**
- On return, the patient care and treatment book is sent to data clerks for entry into the EPMS.
- At paper-based sites, the next mobile refill date for each client is documented in the appointment diary.
- If any client does not collect medication as per their appointment, the standard defaulter tracing system should be triggered (See page 59 of Job Aide).

Clinical review is annual if VL available; Twice yearly if VL not available
**“CARG” – Community-based, client led group refill**

**WHEN?**
Every 3 months at agreed time in community and appointed date at facility

**WHERE?**
Community meeting is held at group members house or chosen community venue. Medication dispensed at facility or at a mobile outreach site and distributed in community

**WHO?**
Group Leader completes community form
Chosen group representative collects medication and distributes
Nurse sees group representative

**WHAT?**
ART and CTX refill only
Peer support

**STEP 1**
- The day before their refill date or early morning on the refill date, the community group members meet at chosen house/community venue.
- The group leader completes the CARG refill form together with the group members.
- The group chooses a representative to attend the clinic to collect the ART; if a member has a clinical problem, this member is selected. The group representative takes the completed community ART refill form from the previous visit and the one completed for this refill to the clinic.

**STEP 2**
- At the facility, use the EPMS or patient appointment diary to pull the patient care and treatment books for clients booked for CARG refill; care and treatment booklets should be filed according to their group membership.
- The CARG representative is seen by the clinic nurse.

**STEP 3**
- The nurse reviews signatures from the previous refill form to ensure all clients have received their medication (this form is filed in a “CARG refill folder”).
- Prescription of ART is given and documentation of any results is made on today’s refill form.
- Today’s community group refill form is given back to the CARG representative.
- Patient care and treatment book is filled according to the refill SOP (Page 65 and 66 of Job Aide).

**STEP 4**
- Patient care and treatment book is sent to data clerks for entry into EPMS.
- Next refill date for the group is documented in the appointment book (can document group number rather than individual names).
- If any group representative does not collect medication as per their appointment, the standard defaulter tracing system should be triggered (Page 59 of Job Aide).

**STEP 5**
- Group representative returns to the community and distributes the ART to their group members.
- Each member signs that they have received their refill.

Clinical review is done as a group. Annual if VL available; Twice yearly if VL not available.

See page 62 OSDM
Family member ART Refill

**WHEN?**
Every 3 months

**WHERE?**
Family group completes group refill form at home

Medication is collected from the facility or mobile outreach point

Medication is then distributed at home

**WHO?**
Nurse sees family representative at facility or mobile outreach

**WHAT?**
ART and CTX refill only

Clinical review is done as a group. Annual if VL available; Twice yearly if VL not available

Any child should be followed up clinically according to their age (See page 84 of Job Aide)

---

**STEP 1**
- The day before use the EPMS or patient appointment diary to pull the patient care and treatment books for clients booked for refill via this model.

**STEP 2**
- Family representative completes the group refill form at home.
- Family representative attends facility or mobile outreach site, bringing today's refill form and the completed refill form from the previous visit.

**STEP 3**
- Family representative is reviewed by nurse.
- ART for all family members is dispensed.
- Dispenser completes patient care and treatment book according to the refill SOPs (page 65 and 66 of Job Aide).

**STEP 4**
- Patient care and treatment book is sent to data clerks for entry into EPMS on return.
- The next appointment for the family group is documented in the appointment diary.
- If any client does not collect medication as per their appointment, the standard defaulter tracing system should be triggered (See page 59 of Job Aide).

**STEP 5**
- Family member distributes ART to other family members at home.
- Each member signs that they have received the medication.
Definition of treatment failure in adults

Clinical failure

- New or recurrent clinical event indicating severe immunodeficiency (WHO Stage 4 clinical condition) after 6 months of effective treatment

Immunological failure

- CD4 count at or below 250 cells/mm$^3$ following clinical failure or persistent CD4 levels below 100 cells/mm$^3$ after 6 months of effective treatment

Virological failure

- VL greater than 1000 copies/ml based on two consecutive VL measurements after 3 months of enhanced adherence counselling and after 6 months of effective treatment
**Routine viral load monitoring algorithm**

**Take viral load test:**
- Any patient with clinical or immunological failure must be urgently assessed individually
- Routinely at 6 months after starting ART, 12 months after starting ART and then every 12 months (24, 36 months etc.)
- Give viral load key messages before client is bled for VL

**VL <1000 copies/ml**
- Maintain first-line therapy
- Schedule next VL testing at month 12 after ART initiation then yearly thereafter
- Offer client options for differentiated ART delivery for stable clients

**VL >1000 copies/ml**
- Assess for and address any possible causes of non-adherence and treatment failure
- Refer for enhanced adherence counselling (EAC)

**1st EAC session on day of result**
- 2nd EAC session after 4 weeks
- 3rd EAC and additional sessions as required over the next 8 weeks

**Repeat VL 12 weeks after result has been given**

**VL <1000 copies/ml**
- Maintain current regimen
- Offer client options for differentiated ART delivery for stable clients
- Schedule next VL testing at month 12 and yearly

**VL >1000 copies/ml**
- Refer to clinician experienced in switching to second line
- Gather information on patient from both clinicians and counsellors
- Switch to second line within 2 weeks from receipt of second high viral load unless clear clinical or psychosocial contraindication
- Urgency of switch will be dependent on clinical condition of patient, CD4 or if woman is pregnant or breastfeeding

---

If there is evidence of clinical or immunological failure the patient should be referred to a clinician and a treatment plan made on an individual basis. In these cases a switch to second line may be considered earlier and without repeat of VL in some cases.

If point of care viral load is available, use this for patients who are clinically unwell and for the repeat VL test after enhanced adherence.
How to prepare a VL DBS sample from EDTA whole blood

1 PREPARATION
1.1 Wash hands vigorously.
1.2 Wear powder-free gloves and change gloves between patients.
1.3 Confirm identity of patient and ensure that all data elements on the form are complete, accurate and consistent.

2 PHLEBOTOMY
2.1 Write name and number of the patient on a purple cap EDTA tube (4mL) with an indelible marker.
2.2 Use a tourniquet or get the patient to clamp his/her fist to locate the veins.
2.3 Clean the puncture site with alcohol or disinfectant. Do not touch again after cleaning.
2.4 Insert the needle into a holder and then into the patient’s vein, bevel upwards. The back of the needle is used to pierce the top of the vacutainer tube.
2.5 The vacuum makes the tube fill to the required level.
2.6 Remove the tube and mix gently by inverting several times to mix the blood with the anticoagulant.
2.7 Blood collection can be difficult on a patient with low blood pressure. In this case, use a syringe. The use of a butterfly can also assist in the collection of blood.
2.8 Gently apply enough blood to each circle to fill them completely. Apply blood to one side only.
2.9 Make sure that the individual blood circles do not touch each other.

3 DBS PREPARATION
3.1 Prepare the material required to make the DBS.
3.2 Write patient name, number and date on the space provided on the card.
3.3 Position the DBS card in a way that the circles do not touch the surface of the bench.
3.4 Mix the blood gently once again by inverting several times.
3.5 Open the EDTA tube.
3.6 Squeeze the end of the Pasteur pipette before inserting it in the tube.
3.7 Insert the pipette in the blood and release the end to suck up the blood.
3.8 Gently apply enough blood to each circle to fill them completely. Apply blood to one side only.
3.9 Make sure that the individual blood circles do not touch each other.
3.10 Place completed DBS cards on the rack to dry. Make sure that the cards do not touch each other.
3.11 Let the DBS cards dry for at least 3-4 hours. Keep out of direct sunlight.
3.12 All used items should be disposed of in an appropriate biohazard container.
3.13 When dry, each card should be packed individually in a plastic zip-lock bag with 2 desiccant sachets and a humidity indicator card.
3.14 Store the packed DBS at room temperature and send to the laboratory within a week after preparation.

4 PITFALLS
4.1 Avoid touching the area within the circle before and after blood spotting.
4.2 DBS cards should always be handled with gloves and only touched on the edges, never on the circles.
4.3 DBS’s should be prepared in a dry and clean room, free of wind and dust.
4.4 Blood can be collected from several (5-10) patients before preparing the DBS’s. Make sure that the collected blood is spotted within 1 hour.
4.5 Do not pack the DBS cards in the plastic zip-lock bag until thoroughly dry. Insufficient drying adversely affects test results.
Acting on viral load results

**RESULTS ARRIVE**
- All VL results are entered into the EPMS
- All VL results are filed
- For all VL results >1000 copies/ml, files should be kept out and flagged either by placing in HVL tray or with a red sticker (these must be removed once the patient has stabilised)
- Document results in viral load result column
- Open the high viral load summary form

**TRACE PATIENTS WITH HIGH VIRAL LOAD**
- Staff member is delegated to trace patients with high viral load via phone or through the community health worker
- SMS of high viral load results to both clinic and patients may be introduced as an additional means of contacting patients

**PATIENT ATTENDS FOR FIRST EAC SESSION**
- Patient is identified through the flagging system and is triaged to EAC on arrival
- Patient is given 1-month refill and booked for a second EAC session in 1 month
- Follow the viral load algorithm
- If client requires further counselling sessions, this should be decided case by case

Use the EPMS appointment lists to identify any patient whose last VL was >1000 copies/ml
These clients need:
- EAC
- A repeat VL
- Change of regimen
# What to start for second line ART

<table>
<thead>
<tr>
<th>TARGET POPULATION</th>
<th>PREFERRED SECOND-LINE REGIMENS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adolescents 10-19 years</strong></td>
<td>If TDF was used in first-line ART</td>
</tr>
<tr>
<td><strong>Adults, pregnant and breastfeeding women</strong></td>
<td>AZT + 3TC + ATV/r* or LPV/r</td>
</tr>
<tr>
<td></td>
<td>If AZT was used in first-line ART</td>
</tr>
<tr>
<td></td>
<td>TDF + 3TC + ATV/r* or LPV/r</td>
</tr>
<tr>
<td><strong>HIV and TB co-infection</strong></td>
<td>Patients receiving rifampicin</td>
</tr>
<tr>
<td></td>
<td>Same NRTI backbone as recommended for adults and adolescents plus double dose LPV/r (800mg/200mg BD)</td>
</tr>
<tr>
<td><strong>HIV and HBV co-infection</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AZT + TDF** +3TC +ATV/r* or LPV/r</td>
</tr>
</tbody>
</table>

*Atazanavir (ATV/r) is the preferred protease inhibitor*

**Those patients with hepatitis B infection will always need tenofovir and lamivudine as these medications also treat the hepatitis B**
Section contents:

• Cotrimoxazole prophylaxis in children 79
• When and what to start 80
• Paediatric ART dosing chart 81
• Developmental red flags 82
• Definition of treatment failure 83
• Differentiated ART delivery for stable children and adolescents 84
## Cotrimoxazole prophylaxis in children

<table>
<thead>
<tr>
<th>AGE</th>
<th>Suspension (240mg/5ml)</th>
<th>Adult tablets (480mg)</th>
<th>Paediatric tablets (120mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 6 months</td>
<td>2.5ml</td>
<td>¼</td>
<td>1</td>
</tr>
<tr>
<td>6 months – 3 years</td>
<td>5ml</td>
<td>½</td>
<td>2</td>
</tr>
<tr>
<td>Over 3 years</td>
<td>10ml</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>
When and What to start

All children and adolescents testing HIV positive are eligible for ART regardless of age or CD4 count

<table>
<thead>
<tr>
<th>AGE</th>
<th>FIRST LINE</th>
<th>SECOND LINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 2 weeks</td>
<td>AZT + 3TC + NVP</td>
<td></td>
</tr>
<tr>
<td>2 weeks to less than 3 years</td>
<td>Preferred: ABC + 3TC + LPV/r</td>
<td>Preferred: AZT+3TC + RAL</td>
</tr>
<tr>
<td></td>
<td>Alternative: AZT+ 3TC + LPV/r</td>
<td>Alternative: ABC+3TC+RAL</td>
</tr>
<tr>
<td></td>
<td>ABC+ 3TC + NVP</td>
<td></td>
</tr>
<tr>
<td>3 years to less than 10 years</td>
<td>Preferred: ABC + 3TC + EFV</td>
<td>AZT + 3TC + LPV/r or RAL</td>
</tr>
<tr>
<td></td>
<td>Alternative: AZT + 3TC + EFV</td>
<td>ABC + 3TC + LPV/r</td>
</tr>
<tr>
<td></td>
<td>AZT + 3TC + NVP</td>
<td>ABC + 3TC + ATV/r</td>
</tr>
<tr>
<td></td>
<td>TDF + 3TC + EFV (or NVP)</td>
<td></td>
</tr>
</tbody>
</table>
# Paediatric ART dosing chart

<table>
<thead>
<tr>
<th>Drug</th>
<th>Strength of tablets (mg) or oral liquid (mg/ml)</th>
<th>Number tablets or ml by weight - band morning (AM) and evening (PM)</th>
<th>Strength of adult tablet (mg)</th>
<th>Number of tablets by weight band</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3.0-5.9 kg AM PM 6.0-9.9 kg AM PM 10.0-13.9 kg AM PM 14.0-19.9 kg AM PM 20.0-24.9 kg AM PM 25.0-34.9 kg AM PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Solid Formulations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZT</td>
<td>Tablet (dispersible) 60 mg</td>
<td>1 1 1.5 1.5 2 2 2.5 2.5 3 3</td>
<td>300 mg</td>
<td>1 1</td>
</tr>
<tr>
<td>ABC</td>
<td>Tablet (dispersible) 60 mg</td>
<td>1 1 1.5 1.5 2 2 2.5 2.5 3 3</td>
<td>300 mg</td>
<td>1 1</td>
</tr>
<tr>
<td>NVPb</td>
<td>Tablet (dispersible) 50 mg</td>
<td>1 1 1.5 1.5 2 2 2.5 2.5 3 3</td>
<td>200 mg</td>
<td>1 1</td>
</tr>
<tr>
<td>EFV</td>
<td>Tablet 200mg and 50mg as described</td>
<td>Not advised Not advised Not advised Not advised 0 1x 200mg 0 1x 200mg + 1x50mg 0 1x 200mg + 2x50mg</td>
<td>0</td>
<td>25.0-29.9kg 1.5x 200mg + 1x50mg 30.0-34.9kg 2x200mg</td>
</tr>
<tr>
<td>LVP/r²</td>
<td>Tablet 100 mg/25 mg</td>
<td>- - - - - - 2 1 2 2 2 2 2 2 2</td>
<td>100 mg/25 mg</td>
<td>3 3</td>
</tr>
<tr>
<td></td>
<td>Pellets 40 mg/10 mg</td>
<td>2 2 3 3 4 4 5 5 6 6</td>
<td>100 mg/25 mg</td>
<td>3 3</td>
</tr>
<tr>
<td>DRV</td>
<td>Tablet 75 mg</td>
<td>- - - - - - 3 3 5 5 5 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAL</td>
<td>Chewable tablets 25 mg</td>
<td>- - - - - - 3 3 4 4 6 6</td>
<td>400 mg</td>
<td>1 1</td>
</tr>
<tr>
<td></td>
<td>Chewable tablets 100 mg</td>
<td>- - - - - - 1 1 1.5 1.5 400 mg</td>
<td>1 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Granules ⁶</td>
<td>0.25 0.25 0.5 0.5 - - - - - - - -</td>
<td>- -</td>
<td></td>
</tr>
<tr>
<td><strong>Liquid formulations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AZT</td>
<td>10 mg/ml</td>
<td>6 ml 6 ml 9 ml 9ml 12ml 12ml - - - - - - - - - - - -</td>
<td>- -</td>
<td></td>
</tr>
<tr>
<td>ABC</td>
<td>20 mg/ml</td>
<td>3ml 3ml 4ml 4ml 6ml 6ml - - - - - - - - - - - -</td>
<td>- -</td>
<td></td>
</tr>
<tr>
<td>3TC</td>
<td>10 mg/ml</td>
<td>3ml 3ml 4ml 4ml 6ml 6ml - - - - - - - - - - - -</td>
<td>- -</td>
<td></td>
</tr>
<tr>
<td>NVPb</td>
<td>10 mg/ml</td>
<td>5ml 5ml 8ml 8ml 10ml 10ml - - - - - - - - - - - -</td>
<td>- -</td>
<td></td>
</tr>
<tr>
<td>LVP/r²</td>
<td>80/20 mg/ml</td>
<td>1 ml 1 ml 1.5ml 1.5ml 2ml 2ml 2.5ml 2.5ml 3ml 3ml - - - - - -</td>
<td>- -</td>
<td></td>
</tr>
<tr>
<td>DRV</td>
<td>100 mg/ml</td>
<td>- - - - - - 2.5ml 2.5ml 3.5ml 3.5ml - - - - - - - - - - -</td>
<td>- -</td>
<td></td>
</tr>
</tbody>
</table>
## DEVELOPMENTAL RED FLAGS

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Red Flags</th>
</tr>
</thead>
</table>
| **Birth to 3 months** | • Failure to alert to environmental stimuli  
                       • Rolling over before 2 months (hypertonia)  
                       • Persistent fisting at 3 months |
| **4 to 6 months**  | • Poor head control  
                       • Failure to smile  
                       • Failure to reach for objects by 5 months |
| **6 to 12 months** | • No baby sounds or babbling  
                       • Inability to localise sounds by 10 months |
| **12 to 24 months**| • Lack of consonant production  
                       • Hand dominance prior to 18 months (contralateral weakness)  
                       • No limitation of speech and activities by 16 months |
| **Any age**        | • Loss of previously attained milestones                                  |
Definition of treatment failure in children

**Clinical failure**

New or recurrent clinical event indicating advanced or severe immunodeficiency (WHO Stage 3 and 4 clinical condition with the exception of TB) after 6 months of effective treatment

**Immunological failure**

Younger than 5 years – persistent CD4 count below 200 cells/mm³ after 6 months of effective treatment

Older than 5 years – persistent CD4 levels below 100 cells/mm³ after 6 months of effective treatment

**Virological failure**

VL greater than 1000 copies/ml based on two consecutive VL measurements after 3 months of enhanced adherence counselling after 6 months of effective treatment

For viral load monitoring, follow the VL algorithm page 74
Differentiated ART delivery for stable children and adolescents

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency and Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children age 0-2 years</td>
<td>Should be seen for a clinical visit <strong>every month</strong> in the MNCH</td>
</tr>
<tr>
<td>Children age 2-5 years</td>
<td>Should be seen for a clinical visit <strong>every three months</strong> in the MNCH</td>
</tr>
<tr>
<td>Children &gt; 5 years</td>
<td>Should be seen for a clinical visit <strong>every three months until on adult doses and fully disclosed</strong></td>
</tr>
</tbody>
</table>

Mothers (and fathers) should be seen on the same day as their child in the MNCH

Book children on the same day to provide peer support for the guardians and to have a child friendly ART day

Adolescents who are on adult doses, who are fully disclosed, have VL < 1000 copies/ml and no current Ois should:

- Be seen for a clinical visit every six months
- Receive 3 monthly ART refills
- Be offered fast track, family member refill or adolescent group refill options
Facility-based adolescent group refill

**WHEN?**
Every 3 months

**WHERE?**
At the facility

**WHO?**
Nurse assisted by primary counsellor or community adolescent treatment supporter

**WHAT?**
ART and cotrimoxazole refills
Peer support
SRH education and services for adolescents

**STEP 1**
- The day before use the EPMS appointment list or patient appointment diary to identify which groups are attending the next day.
- Pull the patient care and treatment books for groups identified.

**STEP 2**
- In settings where a lay cadre will distribute ART to the group (or where the team feels that pre-packing of medication will facilitate dispensing in the group room by a nurse facilitating the groups), send the patient care and treatment books to the dispensing point for ART to be dispensed and pre-packed in patient-named bags.

**STEP 3**
- At the time of the refill, the patient care and treatment books and pre-packed medication should be sent to the group meeting room.
- The clients in the group attend at the specified time for their group.
- If any clinical problem is identified, they are referred to see the nurse. This may be in the OI clinic, or the nurse may also consult when she facilitates the group.

**STEP 4**
- Facilitated discussion is held for 30-40 minutes and fun games and activities for another 30-40 minutes.
- The HCW distributes ART to the clients.
- The HCW distributing the medication should complete the patient care and treatment books according to the refill SOP (See page 65 and 66 of Job Aide).

**STEP 5**
- The patient care and treatment books are sent to the data clerks for entry into EPMS.
- The next refill date is written into the appointment diary indicating the group number.
- If any client does not collect medication as per their appointment, the standard defaulter tracing system should be triggered (See page 59 of Job Aide).
PMTCT

Section contents:

• Summary of actions for PMTCT 87
• Re-testing HIV negative pregnant and lactating women 88
• Infant feeding counselling for women who are HIV positive 89
• Infant risk assessment and ARV prophylaxis 90
• Infant dosing for NVP and AZT prophylaxis 91
• Infant cotrimoxazole prophylaxis 92
• Differentiated ART delivery for pregnant and breastfeeding women 93
**Summary of actions for PMTCT**

**HIV-positive patients**
- Conduct post-test counselling
- Commence on lifelong ART after rapid initiation counselling and clinical and psychosocial readiness assessment
- Two weeks after initiation of ART (TDF-3TC-EFV) start cotrimoxazole 960mg once a day if WHO stage 2,3,4 or CD4 < 350
- Advise on ANC follow up and infant feeding counselling. Consider conditions to safely formula feed

**HIV-negative patients**
- Conduct post-test counselling
- Discuss VMMC for partner and other preventive strategies
- Advise on ANC follow up and infant feeding counselling
- Re-test for HIV according to the guidance on page 88

**Discordant couples**
- Commence positive partner on ART
- If woman is negative and is exposed to ongoing risk, offer PrEP during pregnancy and breastfeeding

**Patients declining testing**
- Continue offering HTS on subsequent visits
# Re-testing HIV negative pregnant and lactating women

<table>
<thead>
<tr>
<th>TIME OF PRESENTATION</th>
<th>WHEN TO TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st or 2nd trimester: HIV-negative status known</td>
<td>Re-test in third trimester</td>
</tr>
<tr>
<td>1st or 2nd trimester: HIV-negative status unknown</td>
<td>Offer HIV test; re-test in third trimester</td>
</tr>
<tr>
<td>3rd trimester: HIV-negative status known</td>
<td>Re-test 6 weeks post delivery</td>
</tr>
<tr>
<td>3rd trimester: HIV-negative status unknown</td>
<td>Offer HIV test; re-test at 6 weeks post delivery</td>
</tr>
<tr>
<td>Labour and delivery: HIV-negative status known from third trimester</td>
<td>Re-test at 6 weeks post delivery</td>
</tr>
<tr>
<td>Labour and delivery: HIV-negative status known from 1st or 2nd trimester</td>
<td>Re-test immediately, then 6 monthly</td>
</tr>
<tr>
<td>Labour and delivery: HIV status unknown</td>
<td>Offer HIV test, then 6 monthly</td>
</tr>
<tr>
<td>Breastfeeding woman: HIV-negative status known</td>
<td>Re-test every 6 months until cessation of breastfeeding</td>
</tr>
</tbody>
</table>
| Breastfeeding woman: HIV-negative status unknown | Offer HIV test immediately  
Re-test every 6 months until cessation of breastfeeding |
Infant feeding counselling for women who are HIV positive

Explain risks of mother-to-child transmission

Discuss:
- exclusive breastfeeding for the first 6 months (recommended feeding method),
- complimentary feeding
- and guidance on the recommended duration of breast feeding (24 months and beyond)

If mother decides not to breastfeed, establish reasons and address accordingly

If mother maintains position not to breastfeed, discuss exclusive commercial feeding for the first 6 months
Infant risk assessment and ARV prophylaxis

**High MTCT risk:**
- Maternal VL >1,000 copies/ml antenatally;
- Maternal ART for less than 8 weeks;
- Seroconversion during MTCT risk period

**Breastfeeding HIV exposed infant:**
- Infant AZT+NVP prophylaxis for 12 weeks;
- NAT at birth; if negative repeat NAT at 6 weeks

**Non-breastfeeding HIV exposed infant:**
- Infant AZT+NVP prophylaxis for 6 weeks;
- NAT at birth; if negative repeat NAT at 6 weeks

**Low MTCT risk:**
- Maternal VL <1,000 copies/ml antenatally

**All HIV exposed infants:**
- Infant NVP prophylaxis for 6 weeks;
- NAT at 6 weeks
### Infant dosing for NVP and AZT prophylaxis

<table>
<thead>
<tr>
<th>INFANT AGE</th>
<th>NVP DOSING</th>
<th>AZT DOSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 6 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth weight less than 2000 grams and older than 35 weeks of gestational age*</td>
<td>2 mg/kg per dose once daily</td>
<td>AZT 4 mg/kg per dose twice daily</td>
</tr>
<tr>
<td>Birth weight 2000–2499 grams</td>
<td>10 mg once daily (1 ml of syrup once daily)</td>
<td>10 mg twice daily (1 ml of syrup twice daily)</td>
</tr>
<tr>
<td>Birth weight ≥2500 grams</td>
<td>15 mg once daily (1.5 ml of syrup once daily)</td>
<td>15 mg twice daily (1.5 ml of syrup twice daily)</td>
</tr>
<tr>
<td>6-12 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 mg once daily (2 ml of syrup once daily or half a 50 mg tablet once daily)</td>
<td>60 mg twice daily 6 ml of syrup twice daily or a 60 mg tablet twice daily</td>
</tr>
</tbody>
</table>

*Premature infants younger than 35 weeks of gestational age should be dosed using expert guidance*
Infant CTX prophylaxis

Cotrimoxazole should be given to all children born to HIV-positive mothers from six weeks of age until they are tested and confirmed to be HIV negative, six weeks after the end of MTCT risk period.

<table>
<thead>
<tr>
<th>AGE</th>
<th>DOSE (ML)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suspension (240mg/5ml)</td>
</tr>
<tr>
<td>0 – 6 months</td>
<td>2.5ml</td>
</tr>
<tr>
<td>6 months – 3 years</td>
<td>5ml</td>
</tr>
</tbody>
</table>
Differentiated ART delivery for pregnant and breastfeeding women

- PMTCT and antenatal, delivery and postnatal services should be integrated. Services should be provided
  - On the same day
  - Under the same roof
  - By the same health care provider

- Mothers and their exposed babies should be seen on the same day in MNCH

- Facility based group refill options “Club refill” may be offered postnatally with integrated exposed baby follow up

- Women already on ART who become pregnant may choose to continue to receive their ART
  - through their chosen refill option or
  - continue to meet with their group for peer support and receive their ART at MNCH
  - BUT they must attend for the additional ANC, postnatal and exposed baby follow up.
  - Attending for these additional services may be supported by their group
HIV/TB AND OPPORTUNISTIC INFECTIONS

Section contents:

- TB screening algorithm for HIV-positive adults, adolescents and pregnant women 95
- TB screening algorithm for children more than one year of age and living with HIV 96
- TB diagnostic algorithm 97
- Administration of TB preventive therapy 98
- Side effects of INH 99
- Special situations with TB preventive therapy 100
- TB/HIV co-infection 101
- Diagnosis, screening and pre-emptive treatment of cryptococcal meningitis 102
- Treatment of cryptococcal meningitis 103
- Cotrimoxazole prophylaxis 104
Adherence counselling of patients and give 300mg INH for 6 months

Counsel patient and do not give IPT

Screen for TB at every visit or encounter with a health worker:
Does patient have any one of the following symptoms?
Current cough, fever, weight loss, night sweats

Assess for IPT eligibility:
Does patient have any of the following?
• Symptoms and signs suggestive of active TB
• Patient currently on treatment for TB treatment
• Completed IPT in the past 3 years
• Patients on ART for 3 months or less
• Patients on ART for more than 3 years who are doing well [CD4 >450]
• Signs of active liver disease or heavy alcohol use

Investigate for TB using Xpert as the preferred standard
(where not accessible, microscopy or other investigative methods may be used)
Investigate for other differentials of TB and manage according to nationally agreed guidelines

No TB
Follow up and consider IPT

TB
Treat for TB

Other Diagnosis
Give appropriate treatment & consider IPT
TB screening algorithm for children more than one year of age and living with HIV

Child more than 12 months of age and living with HIV (All children and infants <1 year should be offered IPT if they have a history of household TB contact)

Screen for TB at each encounter with a health worker or visit to a health facility
Does the patient have any one of the following symptoms?
- Current cough, fever, contact history with a TB case
- Weight loss, or very low weight (weight for age less than -3z-score), or underweight (weight for age less than -2 z-score), or weight loss of >5% since last visit, or flattening growth curve

Assess for IPT eligibility: Does patient have any of the following?
- Symptoms and signs suggestive of active TB
- Patient on treatment for TB
- Patient completed IPT within past 3 years
- Patient has been on ART for 3 months or less
- Patients on ART for more than 3 years who are doing well [CD4 >450 or CD4% >25]
- Signs of active liver disease

INVESTIGATE FOR TB USING XPERT AS THE PREFERRED STANDARD
(where not accessible, microscopy or other investigative methods may be used)
- Investigate for other differentials of TB and manage according to nationally agreed guidelines

No TB
- Adherance counselling of patient and give isoniazid (INH) at 10mg/kg for 6 months

TB
- Counsel, follow up and consider IPT

Other Diagnosis
- Counsel and give appropriate treatment & consider IPT
**TB diagnostic algorithm**

**Presumptive Case of TB**

Collect specimen and send for Xpert MTB/Rif Assay

- **MTB detected/R resistance not detected**
  - Treat with FD 2ERHZ/4RH

- **MTB detected/R resistance detected**
  - Take a specimen for SL-LPA and C&DST
    - Assess for risk of resistance to FQ or the injectable
    - Assess for contraindication to the use of FQ or the injectable
  - Resistance to FQ and/or injectable
    - Treat with an individualized SLD regimen including use of BDQ and/or Delamanid
  - No resistance/contraindication to FQ or injectable
    - Treat with short MDR-TB

- **MTB detected/R resistance detected**
  - Further clinical and radiological evaluation
  - TB still suspected
    - Diagnose clinically diagnosed TB and treat with FLD if DR-TB not suspected
  - TB excluded or no longer suspected
    - Treat for other differential diseases
Administration of TB preventive therapy

**ADULTS**

Give 5mg/kg/day INH (max doses 300mg/day) concurrently with pyridoxine (vitamin B6) 25mg/day

**CHILDREN**

Give 10mg/kg/day INH (refer to weight bands table below)

<table>
<thead>
<tr>
<th>Weight range (kg)</th>
<th>Number of 100mg tablets of INH per dose</th>
<th>Dose given (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5</td>
<td>½</td>
<td>50</td>
</tr>
<tr>
<td>5.1–9.9</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>10–13.9</td>
<td>1 ½</td>
<td>150</td>
</tr>
<tr>
<td>14–19.9</td>
<td>2</td>
<td>200</td>
</tr>
<tr>
<td>20–24.9</td>
<td>2 ½</td>
<td>250</td>
</tr>
<tr>
<td>&gt;25</td>
<td>3 tablets or one adult tablet</td>
<td>300</td>
</tr>
</tbody>
</table>
### Common INH side effects and management

<table>
<thead>
<tr>
<th>Mild</th>
<th>Side effect</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tingling/burning sensation</td>
<td>Continue INH</td>
</tr>
<tr>
<td></td>
<td>Joint pains</td>
<td>Reassure and safety net</td>
</tr>
<tr>
<td></td>
<td>Mild skin rash</td>
<td>Reassess and manage accordingly</td>
</tr>
<tr>
<td></td>
<td>Abdominal pains</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased appetite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Headache</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Itchy skin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diarrhoea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nausea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decreased libido or energy</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Severe</th>
<th>Side effect</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hepatitis/ jaundice</td>
<td>STOP INH</td>
</tr>
<tr>
<td></td>
<td>Severe skin rash with peeling skin</td>
<td>Refer for further management</td>
</tr>
<tr>
<td></td>
<td>Disabling peripheral neuropathy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Convulsions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychosis</td>
<td></td>
</tr>
</tbody>
</table>
## Special situations with TB preventive therapy

<table>
<thead>
<tr>
<th>SITUATIONS IN IPT</th>
<th>GUIDANCE</th>
</tr>
</thead>
</table>
| Development of TB during IPT                                                    | Stop INH  
Start anti-TB treatment  
If on NVP, substitute with EFV  
Collect sputum for DRTB diagnosis                                                |
| Patient misses 2 consecutive monthly refills                                    | Stop INH  
Investigate for active TB and manage accordingly  
Offer counselling                                                               |
| Develops INH intolerance (serious side effects)  
Becomes terminally ill                                                          | Stop INH permanently  
Refer urgently for further management                                                 |
| PLHIV started on ART                                                             | Defer INH initiation by 3 months to allow undiagnosed OIs to be unmasked                           |
| Adults and adolescents living with HIV who have successfully completed TB treatment | Commence INH immediately after successful treatment for an additional six months                  |
| Patients who would have successfully completed MDR-TB and XDR-TB treatment      | Do not initiate INH (no evidence of the potential role of INH in this population)                 |
### Summary of management of TB/HIV co-infection

<table>
<thead>
<tr>
<th>Case definitions and anti-TB treatment regimens are the same for HIV-positive and HIV-negative TB patients</th>
<th>In TB/HIV co-infection, the priority is to initiate anti-TB treatment, followed by cotrimoxazole and then ART</th>
<th>All people living with HIV with active TB disease, irrespective of CD4 and the site of TB disease, should be initiated on ART within the first 8 weeks of TB treatment</th>
<th>Children, adolescents and adults, including pregnant women living with HIV, should be screened for TB using the clinical algorithm at every clinical visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTS should be routinely offered to all persons suspected or known to have TB</td>
<td>If CD4 &lt;50 cells/mm³, start ART within the first two weeks of initiating TB treatment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Diagnosis, screening and pre-emptive treatment of cryptococcal meningitis

Headache, neck stiffness, sensitivity to light, seizures, fever, confusion, blurred vision

YES
Think Cryptococcal meningitis
Refer for Investigation
CD4 and LP

LP negative CRAG
Investigate for other causes

LP positive for CRAG
Treat according to Job Aide page 103

CD4 < 100 cells/mm³
Investigate as client with advanced disease

CD4 > 100 cells/mm³
Initiate on ART

Serum CRAG positive
Recommend LP

LP positive
Treat for cryptococcal meningitis as per page 103 of Job Aide
Initiate ART in 2–4 weeks depending on treatment used

Serum CRAG negative
Initiate ART

LP not feasible or CSF CRAG negative
Start pre-emptive treatment:
Fluconazole 800mg od for 2 weeks
400mg daily for 8 weeks
Followed by maintenance of fluconazole 200mg daily until CD4 > 200 cells/mm³ for 6 months

NO

Headache, neck stiffness, sensitivity to light, seizures, fever, confusion, blurred vision
**Management of cryptococcal meningitis**

<table>
<thead>
<tr>
<th></th>
<th><strong>Induction (14 days)</strong></th>
<th><strong>Treatment consolidation phase (8 weeks)</strong></th>
<th><strong>Maintenance/prophylaxis</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphotericin B +/- flucytosine if available with monitoring</td>
<td>Amphotericin B with flucytosine</td>
<td>Fluconazole high dose (400-800mg od)</td>
<td>Fluconazole low dose (200mg od)</td>
</tr>
<tr>
<td>Amphotericin B available but no monitoring available for 2 weeks</td>
<td>Amphotericin 5-7 day short course AND fluconazole (800mg od)</td>
<td>Fluconazole high dose (800mg od)</td>
<td>Fluconazole low dose (200mg od)</td>
</tr>
<tr>
<td>No amphotericin available</td>
<td>Fluconazole (1200mg od) with flucytosine OR fluconazole monotherapy (1200mg od)</td>
<td>Fluconazole high dose (800mg od)</td>
<td>Fluconazole low dose (200mg od)</td>
</tr>
</tbody>
</table>

Fluconazole prophylaxis must continue for at least one year and be stopped after two consecutive CD4 readings above 200 cells/mm$^3$
Cotrimoxazole prophylaxis

When to start:

- **Cotrimoxazole prophylaxis for adults**, including pregnant and breastfeeding women, should be given to the following:
  - All patients with WHO Clinical Stages II, III, and IV disease
  - All patients with CD4 counts of less than 350 cells/mm³

- **Cotrimoxazole prophylaxis for HIV infants, children and adolescents** should be given to the following:
  - All HIV-positive infants, children and adolescents, irrespective of clinical and immunological condition
  - All children born to HIV-positive mothers at six weeks of age until they are tested and confirmed to be negative

- In settings where malaria or severe bacterial infections are highly prevalent: provide CTX to all HIV-infected infants, children, adolescents and adults, including pregnant and breastfeeding women, regardless of CD4 cell count and WHO clinical stage

When to stop:

- **In settings with low prevalence for both malaria and bacterial infections:**
  - CTX may be discontinued for children 5 years of age and older who are clinically stable or virally suppressed on ART for at least 6 months and with a CD4 count of more than 350 cells
  - For adults, pregnant and breastfeeding women, discontinue when clinically stable on ART, with evidence of immune recovery and viral suppression

- **In malaria endemic settings/or areas with high prevalence of severe bacterial infections, once CTX has been initiated, it should be continued (do not stop)**
## Section contents:

- How to use the HIV and ART counselling game  
- Basic HIV education  
- Basic ART education  
- Planning for travel  
- Viral load testing  
- Choosing a refill option  
- Disclosure counselling for children  
- Initiation checklist  
- Enhanced adherence checklist
ART education: How to use the HIV and ART Counselling Card Game

“Our Story” book was written in 2006 by HIV positive children and adolescents from Africaid’s Zvandiri programme in Zimbabwe. They wrote this book because they wanted to help other children and adolescents living with HIV to understand more about what it means to live with HIV, to help them to stay strong and to look positively towards the future.

They also hoped that the book would provide a useful tool for health workers when counselling children and families with HIV. Chapters 3 and 7 in the book provide a child-friendly explanation of HIV, ARVs and Adherence. This “Our Story” game has now been developed to accompany the book, and is a fun game to play with children and their caregivers when counselling on particular issues such as disclosure, starting Antiretroviral drugs and adherence counselling.

The game includes different cards using the same pictures from the book:

Warriors (CD4 cells), Weak Warriors (Weak CD4 cells), the HIV virus, Antiretroviral drugs and Opportunistic infections.

Together with the child, the cards are placed on a flat surface in the same way as described in the “Our Story” book, adding and removing cards as the health worker explains what happens to the immune system during HIV infection and the way in which ARVs help to make the immune system strong again.

The game can be made personal to each child’s situation. For example, when placing theOI card in to the game, describe any OIs which the child has experienced.

When using the ARV card, describe the regimen the child will be taking or is already taking.

The idea is to have fun with the child and to give them a visual description of the way in which HIV is affecting him/her and the way in which adherence to ARVs can help him/her to control HIV and to become strong again. Ideally, the game is played with the caregiver present so that they then have a common way of talking about HIV and ARVs and this can be returned to each time they come to clinic.

Providing the child with his/her own copy of “Our Story” book then means the child can refer back to the game and counselling session at any time, using the same explanations in the book.

We have found this game an extremely powerful tool for children, their caregivers and health workers. You can be as creative as you like....

...Have fun!!
ART education: How to use the HIV and ART Counselling Card Game

The immune system is the part of the body which protects us from illnesses.

The immune system is made up of different ‘cells’ which work together to protect us from illness. They keep us strong and healthy.

These cells are found in the blood and in other parts of the body. They are small and cannot be seen with our eyes.

The scientific name for these cells is CD4 cells. We find it helpful to think of them like ‘warriors’. Some call them ‘soldiers’.

The warriors (or CD4 cells) work together to fight off infections and keep us strong and healthy.

If there are lots of strong warriors (CD4 cells) in the blood, the immune system is said to be strong.

This means that the body can fight off infections.

Strong warriors = Strong immune system

HIV is a virus. Viruses are germs. Some other well known viruses are fly or measles.

When HIV enters the human body, it uses the warriors (CD4 cells) to make more HIV.

Over time, more and more HIV is made and the amount of HIV in the body increases.

Unfortunately, when HIV uses the warrior (CD4 cells) to make more HIV, it also damages the warriors. The warriors become weak and few in number.

Weak Warriors = Weak Immune System
As time passes, the amount of HIV in the body becomes more. *(HIGH VIRAL LOAD)*

The number of warriors (CD4 cells) in the body becomes less *(LOW CD4 count)*

The immune system therefore becomes weaker and weaker

When the immune system is weak, the body cannot fight off infections.

This is why people with HIV become sick

But there are now medicines which fight against HIV

These are called *Antiretroviral medicines* (or ARVs)

ARVs control the HIV virus, making it difficult for it to multiply

So the amount of HIV in the body becomes less.

When the viral load is so low that it cannot be seen in a blood test, it is **UNDETECTABLE**

With less HIV in the body, the warriors (CD4 cells) are therefore protected.

The number of strong CD4 cells increases

The immune system is *stronger* and it is possible to fight against infections again.

*ARVs work very well but they are not a cure – they cannot remove HIV completely*

**You must adhere:**
- Take every single dose
- At the right time
- For Life
Key to pictures in counselling tools

General disease  Tuberculosis  Flu  Diarrhoea  Malaria

CD4  HIV  ARV  HIVr

ARV2  HIVr2
Basic HIV education

- **For each step, first assess client’s initial knowledge.**
- **Health and diseases:** Diseases like TB, flu, malaria, HIV and others are caused by germs, bacteria and viruses. These diseases are your enemies and can make you sick.
- **CD4 and the immune system:** The CD4 (in green) are cells that live inside the blood and protect the body against diseases. They are like “soldiers” in your body fighting the diseases that are your enemies. All the CD4 cells together make up the army of your body. This army is your immune system.
- **What is HIV?** HIV (in red) is a virus that enters your body. It can enter your body when having sex, through the womb, through breast milk or through contaminated blood products or sharp objects, such as needles. The virus destroys the CD4 cells, meaning it destroys the soldiers that protect you.
- **The CD4 count:** The blood test you had/will have taken is called a CD4 count. This measures how strong the immune system is – how many soldiers are left in your army. Everyone now is eligible to start on medicine to treat HIV, but it is still useful for us to know how strong your immune system is.
- **Opportunistic infections:** When the HIV kills the CD4 cells, diseases can enter the body and make you sick. We call these opportunistic infections. The most frequent infection is tuberculosis.
- **The importance of starting early treatment:** Everyone is now eligible to start ART. We used to wait until the CD4 was 500, but now we know that there are benefits to starting earlier. Taking medication early helps prevent you getting infections and prevents transmission of HIV to others, including your baby if you are pregnant and your partner if they are HIV negative.
- **The importance of cotrimoxazole:** Cotrimoxazole is an antibiotic that acts on a number of infections that we might get if your CD4 count is low (i.e., your army is weak). Cotrimoxazole can reduce the risk of getting these infections. Cotrimoxazole does not act against HIV itself. Only ARVs can suppress the virus. Cotrimoxazole should be taken once a day. If you start cotrimoxazole you will continue to take it just the same as for ARVs. Cotrimoxazole can sometimes cause a rash. If you develop a rash, come back to the clinic immediately to be assessed by your clinician.
- **What’s next?** Once you are diagnosed with HIV, you will be assessed to see if you are clinically and emotionally ready to start ART. Now we can talk about what antiretroviral therapy is if you are ready for this. **If this is too much today, we can schedule another session in the next few days.**
Basic ART education (1)

- **ARVS are drugs that stop the HIV multiplying**: When HIV stops making more viruses in our bodies, our CD4 cells can start to fight back and increase in numbers. Our army starts to get strong again and is able to fight off diseases. ARVs (in blue) do not kill all HIV in the body, but they knock the HIV virus out – making it sleep. This allows our army to gain strength.

- We need to take **3 different ARVs every day for the rest of our lives** to keep the HIV virus suppressed (asleep). Fortunately, we now have one pill that contains all three drugs that we need.

- **ARV medication is for life**. The better you take your medication, the healthier you will be. HIV-positive people who take their medication well live as long as people who are HIV negative.

- We monitor how your ARVs are working by seeing that you are more healthy and by monitoring the viral load test. If your treatment is working the viral load will be very low (less than 1000 copies/ml). This does not mean there is no more HIV in your body. It just means the ARVs are keeping the HIV under control.

- If viral load is not available we will take another CD4 test. If treatment is working well the CD4 count will increase.
Basic ART education (2)

• **The medication schedule:** ARVs must be taken every day as close to the same time as possible as the drugs only work for a certain number of hours. Most clients will need to take their treatment once a day. Some ARVs (including paediatric regimens) must be taken twice a day – every 12 hours. The client must choose the best time to take the medication according to their habits. If you are due to start ART, we will look at some simple tricks to remind you when to take your drugs.

• Make sure the client can name the drugs they are taking. This is important if the client travels and gets caught out without their medication or documentation.

• **Support system:** It can be a big help if you are able to disclose your status to someone. This person could help remind you to take your drugs, listen to your problems and also accompany you to the clinic if needed. Even if you have not disclosed, we will be able to start treatment, but we will continue to support you on this.
• **What is poor adherence to ART?** ARVs should be taken every day as close to the same time as possible. Poor adherence is when we take our pills late, when we forget to take a dose or when we don’t take the pills at all. An example is if we stop the treatment because we are feeling better.

• **What happens if we don’t adhere?** The virus becomes strong again and starts to battle against our CD4 cells (soldiers). If this goes on for long enough, we will start to get sick again and diseases come back (in yellow). Secondly, if we don’t have a regular amount of the ARVs in our blood, the virus becomes clever and changes its form so that the drugs cannot work to suppress it any more (the purple virus in the picture) - this is known as resistance.

• **What side effects might you experience?** Many clients will have some slight side effects at the start of treatment. Most of these symptoms disappear within a few weeks of starting treatment.

• The **most common adult regimen** is TDF/3TC/EFV. It has a few but rare side effects, which normally disappear after a few weeks.

• **Rare side effects of TDF.** Though rare, the most serious side effect of TDF is kidney problems. Clients must report if they are passing little or no urine or develop ankle or facial oedema.

• **Side effects of EFV** include dizziness, insomnia, nightmares, depression, confusion and hallucinations. Rarely, EFV can cause skin rash and jaundice, which can be severe in some cases. If you develop skin rash, yellow eye or pain in the right upper side of the abdomen, you must come back to the clinic straight away. Side effects of EFV usually settle but if they are very bad or are persisting, please inform your clinician. Rarely EFV may also cause the breast tissue in men to enlarge. If you think this is happening please tell your clinician as soon as possible.
Planning for travel

- It is important that you take your medication regularly every day.
- If you are planning to travel, please let us know.
- Your nurse can discuss whether it is possible to give you a longer drug supply or advise where you can access ARVs in the place you are travelling.
- Always take your patient notebook with you when you are travelling in case you need to access medical care while away.
- If you think you will be away for a long time, we will need to give you a transfer letter so that you can be registered at another facility.
High viral load > 1000 copies/ml

Low or undetectable viral load < 1000 copies/ml
**Viral load testing**

What is the goal of your ARV treatment?
When you take your ARVs every day, they stop your HIV multiplying (making more HIV in your body) and prevent HIV from killing your CD4 cells (the soldiers of your body). Therefore, when taking ARV's, the quantity of HIV in your body will decrease.

How to know if your ART treatment is working?
By doing a viral load test. A viral load test measures the amount of HIV in your blood and is done by drawing blood.

When to have a viral load test?
The first viral load will be taken at 6 months and then again after 1 year on treatment. After this the viral load will be taken once every year. If there is a problem with your viral load, it is taken again 3 months later. It is your right to know your viral load result! Ask your health care worker for the test and for your results.

What does a low or undetectable viral load result mean?
- A low or undetectable viral load is a viral load of less than 1000 copies/ml. It means that you have so little HIV in your blood, it can’t be measured. This is because the multiplication of the virus has been stopped by the ARV treatment. An undetectable viral load in the blood does not mean you no longer have HIV it just means it can’t be seen with the tests we have.
- You can compare taking ART to weeding the garden: when you weed the garden regularly (or adhere well to ART), there is hardly any weed to be seen (or no HIV to be seen – your viral load is low or undetectable). But from the moment you stop weeding the garden (or stop taking ART), the weed will pop up again (or HIV will multiply again). In the same way your viral load is undetectable when you adhere well to your treatment.
- A low or undetectable viral load is very good as it means you have your HIV under control. You should continue with your good adherence. You will now be seen less often by the clinician and will be offered easier ways to pick up your drugs.

What does a high viral load result mean?
- You may be facing problems to adhere to your treatment. This is the most common cause for a detectable viral load.
- By solving your adherence problems early, you can get your viral load to low or undetectable.
- In other cases, you could be adherent but you have already become resistant to your treatment.
- If the viral load is high on two tests (3 months apart) your clinician will discuss whether a new drug regimen is needed for you.
Choosing a refill option

Starting ART:

- When you have just started ART, you will be asked to come to the clinic regularly to see your nurse/doctor. This is so we can check you are well and you are not having any problems with your treatment.
- Once your viral load is low (<1000 copies/ml) you will be offered some options for how to collect your drugs in the future: Adapt the following locally according to whether VL or CD4 monitoring is available.
- Once you are well and your viral load is low, you will only need to see a clinician once a year. In between we will give you 3 monthly supplies of medication via one of the refill options we are running at our clinic.

Offer the options that have been selected for your particular site. Not all options will be available.

- FAST TRACK: This option is where you come yourself every 3 months to the clinic to collect your drugs straight from the pharmacy. You can also ask somebody you trust to pick up your drugs for you at the pharmacy, if you give them your patient book.
- CLUB refill: In our clinic we have formed groups of clients to collect their ART. We give the group a time to meet altogether so they can discuss issues and after this we give out the medications. The group meeting usually lasts up to an hour depending on the group. If you would like to see how this works you might like to visit one of our groups.
- CARGS: In our clinic groups of clients who live near each other have formed groups to help them collect their medication. Instead of all the clients coming every time to collect their refill they nominate a group member who collects the drugs for all the clients. If you would like I can ask a CARG member to tell you about this option.
- OUTREACH: In our clinic we have a mobile team that visits certain hard to reach sites. If this site is near where you live this may make it easier to pick up your ART refill. Would you like to consider this option?
- FAMILY REFILL: In our clinic we give the option for family members who are all needing ART to collect medication refills for each other. Would this interest you?

When to report back to the clinic:

Whatever option you choose, there are a few important things to keep in mind:

- You must continue to see your clinician and have viral load done once a year
- When you have a health problem, you must always report to your clinic

In the following cases you must report to the clinic as soon as possible:

- If you have a high viral load
- If you are pregnant
- If you have symptoms of TB like a chronic cough, tiredness, night sweats and weight loss
- If you have a severe headache that is not relieved with paracetamol
- If you have diarrhea that persists for more than one week
- If you are vomiting for more than 3 days
- If you develop a new rash
- If you develop any swelling of your feet/face or are unable to pass urine (if on TDF)
- If you have severe sleep disturbance or change in behaviour (if on EFV)
- If you have breathlessness or dizziness (if on AZT)

Once the problem or new situation has been addressed you will be able to return to your refill option.
Partial disclosure – Session 1

Do not name the virus as HIV in front of the child

- Show the image to the child and discuss together what’s happening in the picture.
- What games are the children playing?
- What food are they eating?
- What does the child/the counsellor think is the funniest image?
• Show the child the picture about “the visit to the hospital or clinic”. Ask what they see in the picture.

• **Explain that when the child comes to the hospital, he/she has to pass through different steps:**

  1. getting **weighed** so we know if they are eating well and growing;
  2. seeing the nurse or doctor to make sure they are doing well;
  3. sometimes the laboratory or another nurse **collecting blood** in order to count the number of green soldiers in the blood or the number of the red attackers in the blood;
  4. the counsellor seeing how the treatment is going;
  5. and finally the **pharmacy** collecting the medicines that are making them strong.
The immune system: Ask what they see in the picture.

- Explain to the child that their body has green soldiers that protect them. These soldiers are always alert and on guard for any invasion. If a germ enters the blood to cause disease, the green soldiers will fight against it. When they do this, we will stay healthy.

- Allow the child to then draw a picture of themselves and their soldiers.
Partial disclosure – Session 2

- Let the child draw for a while to make them comfortable.
- See if they can tell you what they remember about the story of the green soldiers. Use the picture from partial disclosure Session 1 to recap.
- Ask what the child sees in the picture on this card.
- Explain to the child that the red germ is the one in their body and is different from the other yellow germs.
- Explain to the child that when the red germs enter the blood, they attack our green soldiers.
- When our soldiers cannot fight any more, we become sick.
• Ask the child what they see in the picture.
• Explain that with time, the green soldiers became tired of fighting against the red germs who becomes stronger and stronger and the green soldiers start to disappear.
• When the green soldiers collapse and disappear, your body is unprotected and you start to feel bad. You might get headaches or lose weight.
• Ask the child what they see in the picture.

• Explain to the child that these pills are the drugs they will need to take. They are a new type of soldier in the body that will help the green soldiers and fight the red germs.

• Explain that they are going to start (are taking) the medication to fight the red germs. When this happens, the green soldiers become strong again and can fight infection. When this happens, they will start to feel well again.

• Explain to the child that if he takes the pills every day at the right time, the new soldiers will make the red germs go to sleep.
Full disclosure session (full disclosure should be achieved at the latest by the age of 12)

- Explain to the child that the name of the red germ is HIV (if the caretaker agrees that you do so).
- Assess with the child and parent how they feel about knowing that the red germ is an illness called HIV (if the caretaker has named HIV at home).
- Review with the child their knowledge of the immune system, the infection with the red germ and how the medication is working (use the pictures from the previous partial disclosure sessions and give correct names, like CD4, ART, HIV).
- Explain ways of transmission to the child and review the family history.
- Discuss with the child and caretaker whom the child can trust and with whom they can talk about their HIV status.
- Ask the child to look at the picture on this card and point to the child that looks like how they are feeling.
- Explore these emotions with the child.
### COUNSELLORS’ ART initiation checklist

<table>
<thead>
<tr>
<th>Task</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assess readiness to start</strong></td>
<td>- Ask patient what would be the 3 most important reasons for them stay healthy and alive</td>
</tr>
<tr>
<td></td>
<td>- Assess willingness to start ART</td>
</tr>
<tr>
<td><strong>Recap knowledge of ART education session (Page 113, Job Aide).</strong></td>
<td>- For each of the drugs, know the name, frequency and side effects that might occur</td>
</tr>
<tr>
<td></td>
<td>- Use of herbs: Why it’s important to stick to ARVs as a treatment</td>
</tr>
<tr>
<td></td>
<td>- Why it is important to come on the review date given, and what to bring (all remaining medications)</td>
</tr>
<tr>
<td></td>
<td>- What to do in case of travel</td>
</tr>
<tr>
<td><strong>Plan with patient how they will take the drugs:</strong></td>
<td>- What would be best timing for you to take your drugs, taking into account your daily habits?</td>
</tr>
<tr>
<td></td>
<td>- What tools will you use to remind yourself to take your drugs (alarm, time you leave for school)?</td>
</tr>
<tr>
<td></td>
<td>- Where will you store your drugs?</td>
</tr>
<tr>
<td></td>
<td>- Where will you keep extra doses in case you are out of the house?</td>
</tr>
<tr>
<td></td>
<td>- How will you manage missed doses?</td>
</tr>
<tr>
<td></td>
<td>- What will you do in case of side effects?</td>
</tr>
<tr>
<td><strong>Explain follow-up plans:</strong></td>
<td>At the beginning of ART treatment, your follow up will be quite intense (D14 if on NVP regimen or initiated on same day as testing, M1, M2, M3), but appointments will be more spaced out with time. We will discuss options for long-term follow up at later counselling sessions</td>
</tr>
<tr>
<td><strong>Ask for their consent to be called or traced if they miss an appointment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Document your findings and refer to clinician</strong></td>
<td></td>
</tr>
</tbody>
</table>
Enhanced adherence checklist
Use this checklist and make notes in both the patient care and treatment booklet and patient notebook

Session 1

**STEP 1: REVIEW EDUCATION**
Viral load is: ________________________________
High viral load is: ________________________________
Suppressed viral load is: ________________________

**STEP 2: PATIENT’S REASON FOR HIGH VL**

**STEP 3: REVIEW TIME MEDS TAKEN**
Problem with time: ___________________________
Agreed upon time: ___________________________
Late/missed doses: ___________________________

**STEP 4: STORING MEDS/EXTRA DOSES**
Usual storage place: ___________________________
Emergency supply will be carried in: ____________

**STEP 5: MOTIVATION CARDS**
Top 3 goals for the future: _______________________
Do you think your ARVs can help you achieve your goals for the future? Brainstorm places to put stickers & other reminders

**STEP 6: PATIENT’S SUPPORT SYSTEM**

**STEP 7: PLANNING FOR SUBSTANCE USE**
Your plan to make sure you take your ARVs if you use alcohol or drugs

**STEP 8: GETTING TO APPOINTMENTS**
How do you get to clinic? _______________________
Back-up plan to get to clinic _____________________
Not able to come on date _______________________

**STEP 9: WAY FORWARD**
Your VL will be repeated in 3 months______(which month)
Next visit date (1mth-give 1mth ART): ______________

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**Session 2**

**STEP 1: DISCUSS ADHERENCE DIFFICULTIES/PROBLEMS**
Adherence difficulties ___________________________
_____________________________________________
_____________________________________________
_____________________________________________
Problem solve _________________________________
_____________________________________________
_____________________________________________
_____________________________________________

**STEP 2: CHALLENGES IN ADHERENCE**
Thoughts to deal with mistakes AND learn from mistakes
_____________________________________________
_____________________________________________

**STEP 3: PLANNING FOR TRIPS**
Regular travel location ___________________________
Remind patient to plan for enough treatment

**STEP 4: REVIEW & PLAN A WAY FORWARD**
Remind patient when VL will be repeated
Give 2 months’ ART supply. (Next visit date for blood to be drawn for follow up VL; 2 months’ time)
_____________________________________________
(If further EAC needed, book sooner as needed)