HIV Diagnostic Assistant Manual

Baylor Tingathe Community Outreach Programme

3rd Edition 2016

Developed by:

Tingathe Program

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WELCOME!

Welcome to the Baylor-Tingathe training for HIV Diagnostic Assistants! We hope you are as excited as we are about the coming weeks. There will be many topics covered, including HIV and AIDS, antiretroviral treatment (ART), prevention of mother-to-child transmission (PMTCT) of HIV, HIV testing services (HTS), and other important topics. You will also be trained on important skills for HIV Diagnostic Assistants (HDAs), such as active case finding, linking those who test HIV-positive to treatment, and HTS quality assurance. By the end of this training you will have the knowledge you need to work at the health facility to help provide high-quality HTS and ensure those who need treatment access it as well as any other health services required.

Baylor College of Medicine Children's Foundation-Malawi and the Tingathe program are dedicated to serving the needs of HIV-infected children and their families. Baylor began working in Malawi in 2006, when it opened its Clinical Center of Excellence in Lilongwe. In 2007, Baylor established satellite clinics in some of Lilongwe's busiest health centers for training and direct patient care. Working in these clinics during this time, we noted that very few HIV-infected children were enrolled in care. When HIV-infected children did finally come to clinic, it was often too late and the children were very sick. In February 2008, we initiated the Tingathe program to use community health workers to improve services for HIV-infected children and their families. Since then, our work has expanded to provide comprehensive HIV services in multiple districts in Malawi. In 2014, the program identified the need for a new cadre of health worker – HIV Diagnostic Assistants – to improve HIV testing coverage and access in the country and piloted this cadre with the Ministry of Health. Tingathe has grown and expanded, and in 2018 celebrated 10 years of service in Malawi, working to strengthen the country's health system in close collaboration with the Ministry of Health.

For the coming years we have recruited YOU to help us improve and expand our services. As HIV Diagnostic Assistants, you will have an opportunity to truly serve your community. You will identify children and families that need HIV testing. You will follow HIV-positive children, mothers, and families to ensure that they access treatment and other necessary health services. The road ahead will not be easy, but we are confident that you are up to the task. You have shown that you have a genuine concern for your community and that you will treat all your patients with the respect and dignity they deserve. We extend to you a warm welcome to Tingathe's team. We are so happy to have you join us in this exciting work.

Sincerely,

The Baylor-Tingathe Team
Dr. Saeed Ahmed
Dr. Maria Kim

2 TESTING ASSISTANT ROLES AND RESPONSIBILITIES

OBJECTIVES

By the end of Unit 2, you should be able to:

- Understand what roles and responsibilities you will have as an HIV Testing Assistant (HTA) (now termed HIV Diagnostic Assistant - HDA)
- Describe the characteristics of professionalism
- Explain the importance of proper communication
- Understand how to keep yourself healthy both mentally and physically, and know what to do if you face problems
- Explain your role within the Tingathe program
- Explain your role within your health facility

VOCABULARY

STANDARD OPERATING PROCEDURE (SOP)	Established procedure detailing step by step instructions for program activities
PROFESSIONALISM	Exhibiting a courteous and business like manner in the workplace
ORGANOGRAM	A diagram that shows the structure and relationships between the different departments within an organization

ROLES AND RESPONSIBILITIES

As an HIV Testing Assistant you will have many responsibilities. In order to accomplish your job to the best of your ability, you will be trained in the following topics and then be expected to perform the corresponding tasks listed.

TRAINING TOPICS

- Screening and Recognizing HIV Signs and Symptoms
- Provider-Initiated Testing and Counseling (PITC) Implementation and Monitoring
- HIV Diagnosis
- HIV Testing and Counseling (HTC) Quality Assurance
- HIV Treatment
- Encouraging and Monitoring Adherence to HIV Treatment
- Exposed Infant Care and Special Issues for Children
- Linkage to Care Implementation and Monitoring
- Sexually Transmitted Infections and Orientation to Syphilis

ROLES AND RESPONSIBILITIES

You will have four main responsibilities as an HIV Testing Assistant. These responsibilities may vary slightly depending on the needs of your site.

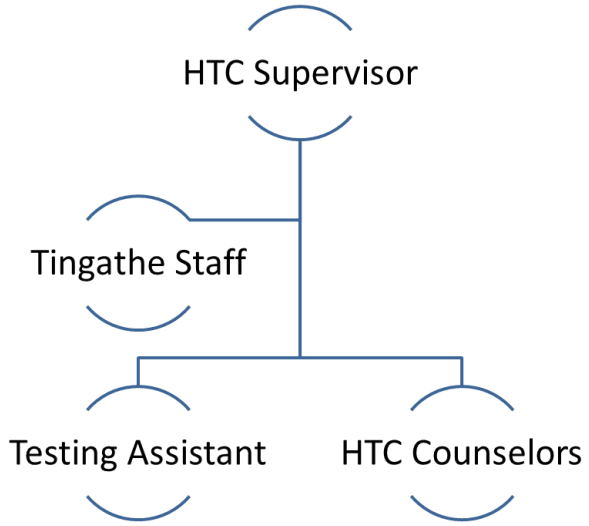
1. **Provide Testing and Counseling**
    - Perform rapid HIV and syphilis testing and counseling in all priority PITC settings.
    - Collect DBS blood samples for early infant diagnosis, viral load, discordant results and EQA.
    - Ensure adherence to the duty roster to avoid interruption of services.
    - Assist with screening patients to find those who should receive an HIV test.
    - Assist with finding new pediatric HIV cases ("case finding").
    - Work with colleagues at your sites (clinicians, nurses, counsellors, lab personnel, etc.) to increase PITC and reach site level goals.
2. **Ensure Quality Assurance**
    - Comply with routine quality assurance measures for HIV and syphilis rapid testing including being available for regular HTC/ART/PMTCT supervision and mentorship sessions.
    - Ensure availability of adequate HTC, EID, viral load and syphilis testing commodities and supplies in the testing room.
    - Ensure effective delivery of HTC services in line with required standards.
3. **Assist with Linkage to Care**
    - Track HIV sample transportation and coordinate patient follow up.
    - Ensure all test results are returned and properly recorded.
    - Ensure effective HTC, EID, viral load and syphilis client referral and linkage to other services.
    - Keep records of HIV-infected identified children and track them through enrolment into HIV care.
4. **Reporting**
    - Collect data, keep appropriate records and write HIV and syphilis diagnositic service reports as well as Tingathe monthly reports.
    - Maintain effective communication and collaboration with supervisors and other health facility staff.
    - Communicate data and goal progress from Tingathe to your health facility.

WORKING IN YOUR HEALTH FACILITY

As an HIV Testing Assistant, you will complement the efforts of existing HTC counselors and help fill gaps in the existing HTC and HIV services at your site. You will help your facility expand their PITC efforts, ensure quality assurance and help link patients to care. HIV Testing Assistants are different than other HTC counselors at a site because as a TA you will dedicate all your efforts to HTC related services.

An HTA is part of the same team of MOH and other staff who provide HTC services. You should complement and add services to the existing HTC services in your facility, working side-by-side with HSAs, nurses and other staff. A TA is not replacing existing HTC counselors. Instead, you should work to fill the gaps in HTC services so that every patient who accesses care at a health facility can be offered an HIV test.

HTA ORGANOGRAM



- You will have supervision from Tingathe supervisors and Ministry of Health (MOH) HTC supervisors who will work hand-in-hand to provide you with support and guidance.
- You will report directly to MOH staff (HTC supervisor and facility in-charge)
- You will send some reports for PITC and Linkage to Tingathe and bring some reports back to the facility to help the HTC service provider team understand successes and gaps and develop action plans for improvement.
- Work together with other counselors and staff to accomplish goals!

Your role within your health facility is dependent on how your health facility is run. Each site will have its own set-up and organization of their office and materials. Each site will also have their own Ministry of Health (MoH) staff with different kinds of skills and responsibilities. It is important to be flexible and find ways to complete your responsibilities within your new setting.

It is our job to work *with* the MoH staff that is already at the health facility. Always remember that we are all one team working toward the same goal. Health facility staff may have responsibilities that are very similar to your own. Instead of taking over that responsibility, try to work with them to fill gaps and accomplish it in a more efficient way. We are not there to take over the tasks and responsibilities that others already have. We are there to support MoH staff in providing high quality of care for patients.

Try to make positive change within the health facility for the benefit of the whole facility, not just for the benefit of yourself and your goals. Sometimes a change can make your job easier, but makes others' jobs much more difficult. Discuss with your HTC supervisor before you make decisions that affect the health facility, and work together to find the best way forward.

If you ever encounter issues with other staff, first talk with the person you are having the conflict and try to resolve it amongst yourselves. If the issue is not resolved, speak to your HTC Supervisor to assist you.

PROFESSIONALISM

As a TA it is very important to always be professional in your work, both when you are in the field and when you are working in the clinic. Being professional encompasses many different characteristics.

ACCOUNTABILITY

⇒ Responsibility to someone or some activity
- Admit your mistakes, everyone makes them
- Learn from your mistakes so they do not happen again
- Be open to constructive critiques

RELIABILITY AND DEPENDABILITY

⇒ Consistent, good quality of performance; can always be trusted
- Attend to your duties and responsibilities
- Be someone that your patients can count on
- Be someone that health facility staff and Tingathe can count on
- Follow up with all patients
- Utilize time at work for work-related activities and learning, not personal activities

PUNCTUALITY

⇒ Doing something at an appointed time
- Be on time to work and to meetings; being late can make it seem that you are not interested
- Take reasonable lunch breaks

ETHICS IN YOUR WORK

⇒ Strong moral principles in work
- Take your work seriously– understand and appreciate it is important and affects the lives of your patients
- Complete job and tasks thoroughly
- Complete job and tasks in a timely manner
- Complete all documentation with honesty
- Express yourself if you feel you are unable to complete tasks

INTEGRITY AND HONESTY

⇒ Truthfulness and trustworthiness
- Be truthful in written and verbal communications
- Be accurate
- Uphold and maintain ethical behavior

CONFIDENTIALITY

⇒ Keeping important personal information private
- Respect the privacy of your patients and do not talk about any of them, their health, or their personal lives
- Do not disclose or discuss a patient's HIV status with others
- Respect the privacy of all patients

PROFESSIONALISM

TAKE YOURSELF SERIOUSLY

⇒ Respect yourself and the work that you do
- Dress appropriately for work; always look professional
- Take the work you do seriously and be proud of your accomplishments
- Be organized
- Prepare a work plan before you start your day

RESPECT AND TOLERANCE

⇒ Be fair and respect peoples' differences
- Maintain patient confidentiality
- Treat EVERYONE with respect. This includes, but is not limited to: patients, supervisors, co-workers, and Ministry of Health staff
- Respect cultural and religious differences of others
- Do not gossip about people, including co-workers, supervisors, and patients behind their back

COMMUNICATION

As an HIV Testing Assistant one of the most important parts of your job is communicating, whether explaining something to your patient, updating your supervisor on your progress, or updating records. Remember these important points when communicating with colleagues or patients.

COMMUNICATION WITH YOUR PATIENTS

- Practice active listening
- Explain things in a way the patient can understand
- Be thorough and explain things in detail (do not assume that the patient will not understand details)
- Be patient and explain things again if the patient does not understand
- Do not get frustrated when needing to repeat yourself
- Answer questions that you know the answer to
- Say "I don't' know" if you don't know, find out the answer, then get back to them
- Be respectful

COMMUNICATION WITH YOUR COLLEAGUES

- Notify team members if you have to step out and make sure someone is covering for you
- Ask questions if you do not know the answer to something
- Speak to one another with respect

COMMUNICATION WITH YOUR SUPERVISORS

- Make sure you relay any important messages
- Be open and honest
- Be respectful

WRITTEN COMMUNICATION

- Write clearly so that other people can read

KNOWING WHEN TO SAY: *"I don't know."*

It is okay to say "*I don't know*" when you do not have the answer to a patient's questions.

If you give wrong information people will listen to you and believe what you say is true. Sometimes, when you give the wrong information it turns into a myth about HIV that is then spread through the community. These myths can then turn into something people begin to believe is fact.

Your patient will not lose trust in you because you say "*I don't know*." However, they may lose trust in you if you make up facts.

Saying *"I don't' know"* is not a sign of weakness. It is brave to admit when you do not know something. Instead, find out the answer from a colleague or supervisor and return to answer the patient with accurate information.

You do <u>not</u> need to know everything and we do <u>not</u> expect you to know everything.
It is always better to say "I don't' know" then to make something up.

MENTAL SELF CARE

Working with people who have HIV can be very emotional, not only for them, but also for you.

It is important to recognize that you have feelings as well. Sometimes you might feel sad, sometimes you might feel defeated, and sometimes you might feel depressed. It is okay to feel these things, but it is also important to address them.

As HIV Testing Assistants we need you to be positive and mentally healthy, so that you can be a productive member of the HTC services team. We want to make sure we support you so that you can continue to do the good and important work that you are doing.

Sometimes it is helpful to think about the circumstances that are making you feel sad or upset. Perhaps a patient has died or you are frustrated because one of your patients is refusing an HIV test which makes you feel there is nothing you can do. These can be painful and frustrating experiences.

Your HTC Supervisor is someone who you should be able to talk with if you are feeling upset. If you need to seek out professional help from a counselor or clinician who is trained in mental health, we will help you find someone who you can go to.

MEDICAL SELF CARE

You are working in the health field, and it is important that you take care of yourself. If you are feeling sick, it is important that you go to the clinic to get evaluated.

In addition, if you have something that is contagious, try to minimize patient interaction and/or wear protective gear (e.g. mask or gloves) to help prevent transmission to them.

If you are in a situation where you may have gotten HIV from a patient, go directly to your clinic and get post-exposure prophylaxis (PEP).

Take precautions:

- Do not wear open toed shoes
- Keep your nails short
- Practice good hygiene
- Hand wash before and after every test and patient interaction *(do not do it in a way that would be offensive to the client)*

STANDARD OPERATING PROCEDURE

Standard operating procedure (SOPs) are established procedures detailing step by step instructions for program activities. Tingathe strives for all sites to be achieving the same high quality performance and goals. The only way to do this, is to make sure everyone is aware of the proper procedures for each program activity.

For these reasons, SOPs are an important part of Tingathe and your job. We have an SOP for all major procedures in our program. All SOPs are broken up into five parts.

5 PARTS OF A SOP

1 **PURPOSE**	Gives the name of the procedure, important background information, and a basic outline
2 **SCOPE**	Tells you the target group for the SOP and where it should be conducted
3 **RESPONSIBILITIES**	Lists the person(s) responsible for completing the procedure
4 **PROCEDURE**	Steps to perform the job/task (states: who, what, when, where, how, and why)
5 **REFERENCES**	Defines any difficult language and gives other important references that might help

Binders with all available SOPs are kept at each site. If you ever have a question or do not remember how to complete a specific task, you can reference the corresponding SOP to help you.

If a procedure changes, Tingathe personnel will make sure that an updated copy of the SOP is brought to your site.

SUMMARY

KEY POINTS

- You have many responsibilities as an HIV Testing Assistant (HTA). You will dedicate your efforts to HTC services only and should work hard to do all your jobs in the best way you can.
- As an HIV Testing Assistant, you help fill HTC gaps in your facility and complement the efforts of existing HTC counselors to expand PITC services and help link patients to appropriate HIV services.
- Your job starts with being professional; always remember to exhibit a respectful and business like manner in the workplace.
- Communication is key—with your colleagues and your patients. Do not be afraid to say *"I don't know"*.
- It is important to take care of yourself both mentally and physically. Tingathe is there to help you if you ever need it.
- Your role within your health facility and within Tingathe's program is important. Work to build a respectful relationship with your HTC Supervisor and other Ministry of Health staff to help each other accomplish goals.
- Standard operating procedures are established procedures detailing step by step instructions for program activities. These help standardize the program's work while serving as a reference for all HTAs.

3 SCREENING AND RECOGNIZING HIV SIGNS AND SYMPTOMS

OBJECTIVES

By the end of Unit 3, you should be able to:

- Explain what it means to conduct screening for PITC
- Identify the major signs and symptoms of HIV in children
- Understand that the presence of HIV signs and symptoms on a child does not mean the child is definitely HIV-infected
- Describe your role as an HTA in identifying and referring patients who might have HIV/AIDS

VOCABULARY

ADVOCATE	A person who speaks or writes in support or defense of a person or cause
DIAGNOSE	To identify the nature of something
SIGN	A change on the person's body you can physically see
SYMPTOM	A feeling or sign that the patient or guardian expresses to you that they have noticed; a complaint

SCREENING PATIENTS FOR HIV TESTING

One of your roles as an HTA is to assist with screening patients in high priority departments throughout your health facility including: antenatal (ANC), maternity, sexually transmitted infection (STI), tuberculosis (TB), and in-patient or short stay wards. Your health facility may also instruct you to screen at other departments as well.

Screening is the process of checking each and every patient's health passport book for their HIV testing history. After screening, you should offer all patients with an unknown or recently negative status an HIV test. In high priority departments, all patients should be offered an HIV test, except those who have already been diagnosed with HIV. Even patients who have been tested within the last three months should be offered another test.

Screening patients helps to identify more people living with HIV. Without proper screening, some patients may be missed and never offered a test. That is why it is important to screen and offer testing to everyone.

RECOGNIZING SIGNS AND SYMPTOMS

It is important for you to be able to recognize possible signs and symptoms of HIV in children, so that if you see a child in the health facility with those signs and symptoms you can offer them an HIV test. Having these signs and symptoms **does not mean** the child definitely has HIV. However, they should still be offered an HIV test to clarify their HIV status and seek appropriate treatment, if needed.

If you identify a child at the health facility with possible signs and symptoms of HIV, talk to the child's guardian about testing the child for HIV. Make sure the guardian understands that even though the child may have signs and symptoms of HIV, that does **not** make them infected. The only way to know if the child is infected is to be tested.

Remember, it is **not** your responsibility to diagnose your patient. Your job is to look and listen for signs and symptoms in patients and offer them testing if HIV is suspected. It is not necessary for you to remember all the names of the disease you will learn in this unit. Names and descriptions are given to assist you in identification.

GROUP 1: BODILY CHANGES

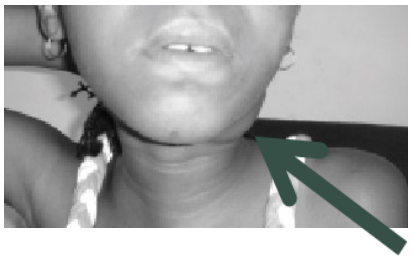
LYMPHADENOPATHY

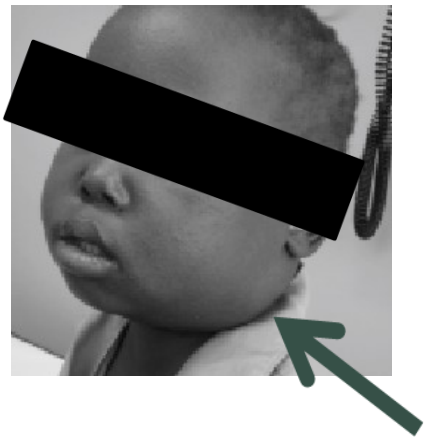
SIGNS

- Swollen lymph nodes
- Swollen bump on neck, armpit, or groin

SYMPTOMS

- Hot, painful, swollen lymph nodes
- Bump on the body (neck, armpit, or groin)





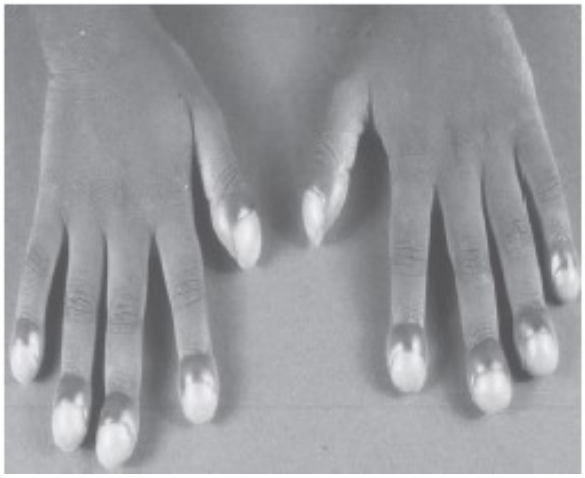
CLUBBING

SIGNS

- Enlargement of the tips of the fingers

SYMPTOMS

- Fevers on and off
- Cough for a long time
- Poor appetite
- Fast breathing
- Weight loss



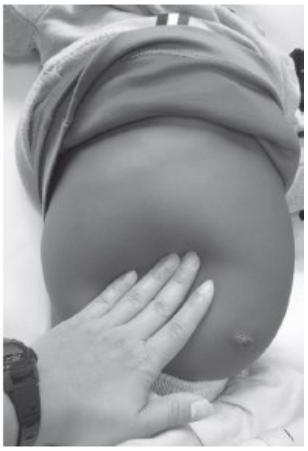
PAROTID ENLARGEMENT AND HEPATOSPLENOMEGALY

SIGNS

- Abnormally large stomach
- Enlarged glands on side of face, near the ears

SYMPTOMS

- Hot, painful, swollen lymph nodes
- Bump on the body (neck, armpit, or groin)



GROUP 2: SKIN INFECTIONS

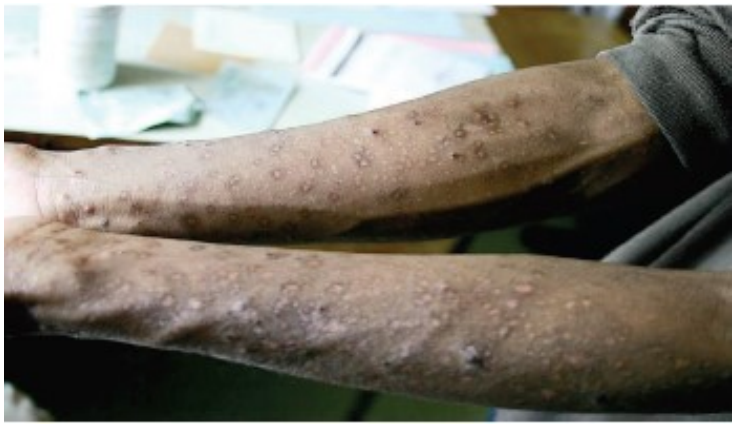
PAPULAR PRURITIC ERUPTIONS

SIGNS

- Evenly distributed normal or dark colored papules on body, arms, or legs
- Can look like scabies

SYMPTOMS

- Severe, itchy rash that does not seem to improve with medication



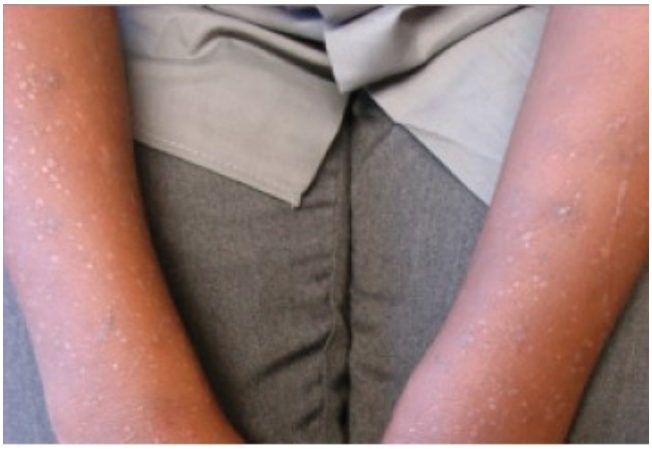
FLAT WARTS

SIGNS

- Slightly raised skin-colored lesions
- Looks like clear bumps stuck on the face

SYMPTOMS

- Non-painful rash on face and/ or arms that does not seem to be getting better with creams
- Often in teenagers, may complain of stigma from others



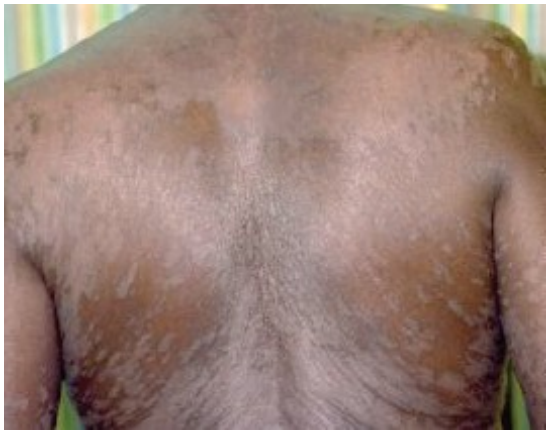
FUNGAL SKIN INFECTION

SIGNS

- Light colored, scaly patches

SYMPTOMS

- Itchy rash on body

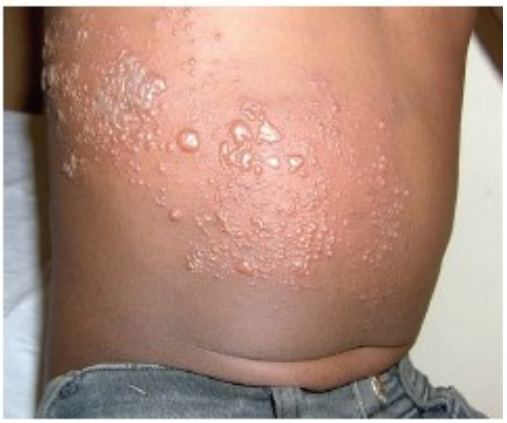


GROUP 2: SKIN INFECTIONS

HERPES ZOSTER/SHINGLES

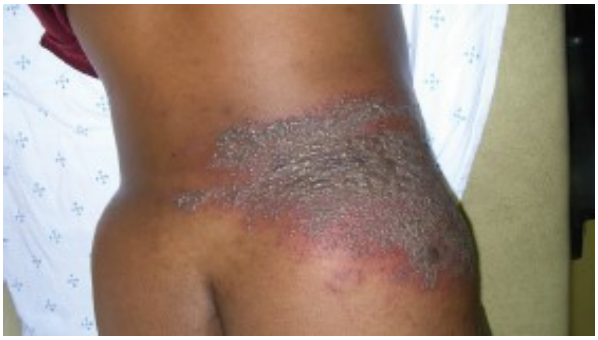
SIGNS

- Grouped blisters in a patch on the skin
- Lesions that do not usually cross the body's mid-line
- Rash that looks like there are little balls of water under the skin



SYMPTOMS

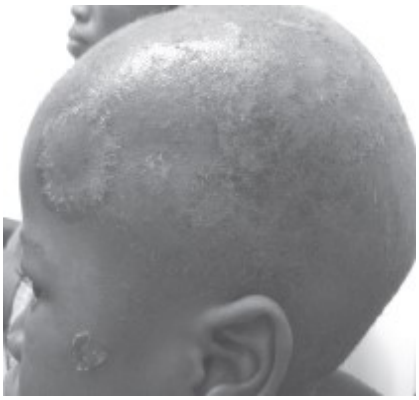
- Fever
- Body pains
- Intense pain and burning on a specific area of the skin



SEVERE TINEA

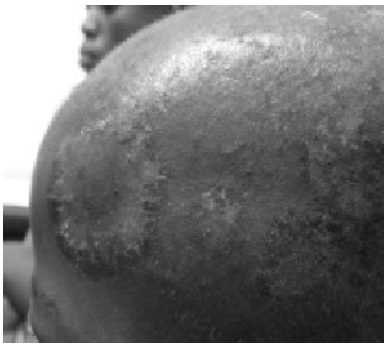
SIGNS

- Silver or white, round patches of skin infection, usually on scalp
- Hair loss in area where infection is



SYMPTOMS

- Itchy rash on scalp
- May complain of hair loss



GROUP 3: MOUTH AND EAR SORES

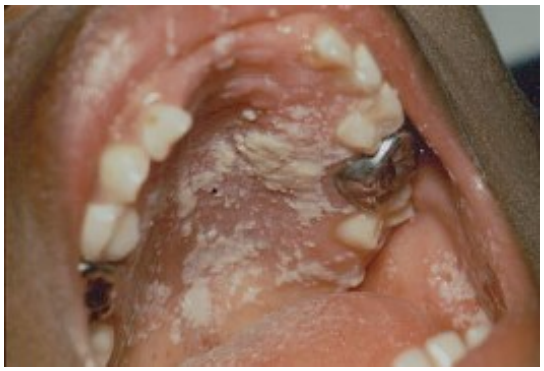
ORAL THRUSH

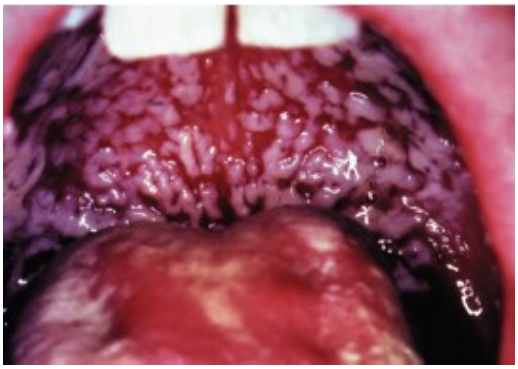
SIGNS

- Multiple whitish or red patches anywhere inside the mouth

SYMPTOMS

- Difficulty or pain while eating or swallowing
- In infants, can cause vomiting or refusal to eat





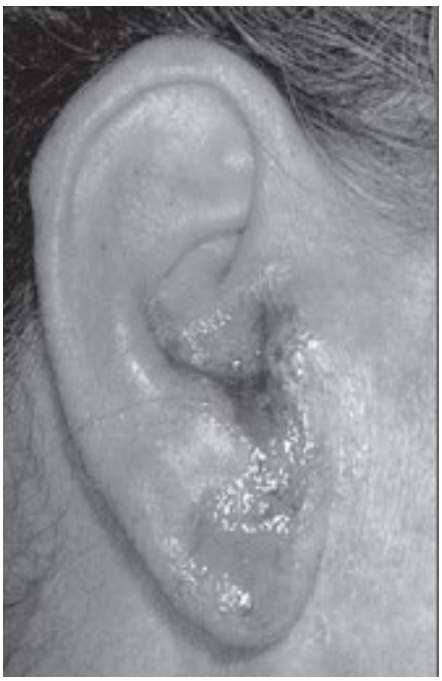
EAR DRAINAGE

SIGNS

- Drainage from ear

SYMPTOMS

- Pain in ear
- Liquid coming out of ear
- Liquid coming from ear has a bad smell



GROUP 4: MALNUTRITION AND STUNTING

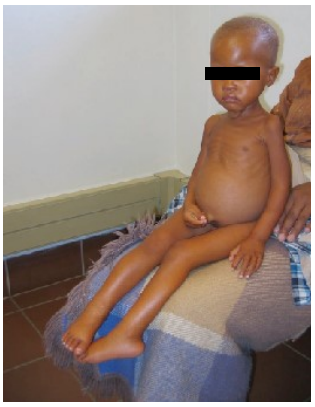
MALNUTRITION

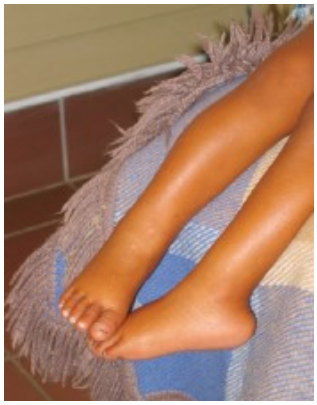
SIGNS

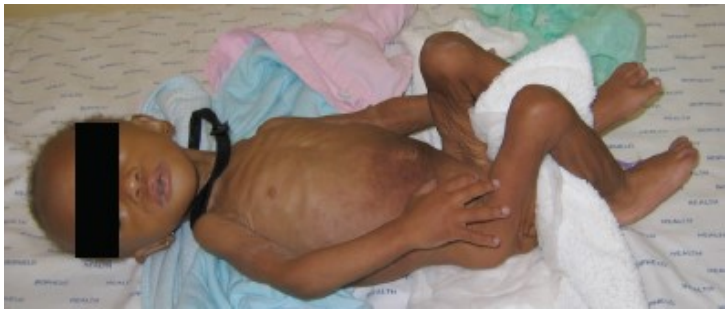
- Appears swollen, especially feet, legs, stomach and face
- Thin hair
- Appears very thin

SYMPTOMS

- Significant weight loss
- Complains that child will not eat or looks weak







STUNDED GROWTH AND DEVELOPMENT

SIGNS

- Stunted growth (abnormally small for age)

SYMPTOMS

- Slow development, child cannot walk or talk at normal ages
- At 8 months: child cannot sit-up alone
- At 1 year: child cannot stand with support
- At 2 years: child cannot walk

GROUP 5: OTHER SIGNS AND SYMPTOMS

CHRONIC DIARRHEA

SIGNS

- Wasting
- Person appears very thin

SYMPTOMS

- Diarrhea for a long time that has not gone away with treatment
- Complains of weight loss

CHRONIC FEVER

SIGNS

- Body shaking
- Has chills during time of fever

SYMPTOMS

- Fever on and off for long periods of time
- Medicine has not helped the fever go away

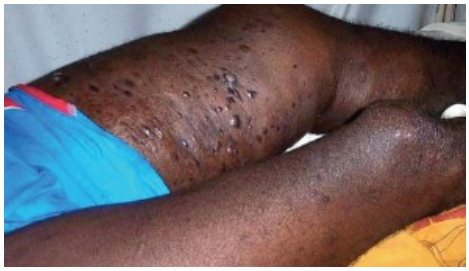
KAPOSI SARCOMA (KS)

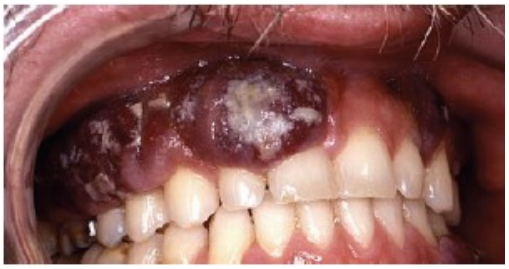
SIGNS

- Single or multiple purple patches or nodes, mainly on skin and mouth
- Enlarged lymph nodes
- Swollen legs

SYMPTOMS

- Patient complains of bumps or purple rash on skin, in mouth, armpits or in groin area





SUMMARY

KEY POINTS

- It is important to assist with screening patients within your facility. If you identify a patient that has an unknown or negative status, offer them an HIV test to clarify their status.
- You do not have to memorize all the signs or symptoms of HIV. Just be familiar with them so if you see or hear about them, you can take action.
- Even though a child may have signs and symptoms of HIV, that does **not** mean he/she is definitely infected.
- It is your role to offer testing to clients, not to diagnose them!

SUMMARY

(Cases 1-2) For the following case study questions, read the case carefully and answer each of the questions with the best answer.

Case #1: You see a child at the under-five clinic with clear bumps all over his head, liquid coming from the ear and an enlarged stomach. You talk to the mother and she said he has been complaining of a painful ear and his head being very itchy.

1. Is this child HIV-infected?
    a. Yes
    b. No
    c. Don't know
2. Which of the following is the first priority in caring for this patient?
    a. Counseling the mother on PMTCT
    b. Doing a nutritional assessment on the child
    c. Offering to do an HIV test for the child
    d. Diagnosing the disease

(Q2) For the following multiple choice questions, choose the best answer to each question.

2. Why is it important to memorize all the names of the diseases which have signs and symptoms of HIV?
    a. In order to correctly diagnose a patient
    b. To write it in the health passport book for a clinician to look at
    c. It is not necessary to remember the names of the diseases
    d. To determine what to counsel the mother about

(Q3) For the following short answer question, use the lines below to completely answer the question.

3. If a child has signs and symptoms of HIV, does it mean the child has HIV? Why or why not?

_____

_____

_____

_____

4 QUALITY ASSURANCE AND HTC CHALLENGES IN MALAWI

OBJECTIVES

By the end of Unit 4, you should be able to:

- Explain what HTC is and the main HTC approaches in Malawi
- Understand the HTC challenges Malawi faces
- Describe steps which an HTA can take to overcome some HTC challenges

Definition of HTC

- World Health Organization Definition:

HIV counseling and testing is a confidential dialogue between a client and a care provider aimed at enabling the client to cope with stress and take personal decisions related to HIV and AIDS. (*WHO, 2005.*)

Implementation /Expansion of HTC is guided by:

- HIV/AIDS Policy
- National Action Framework
- HTC Scale Up Plan [2006-2010]
- HTC Guidelines (currently under review)

Main HTC Approach

- Client Initiated HTC (i.e. VCT)
- Provider Initiated HIV Testing & Counseling (PITC)

These approaches are provided through:

- Static sites
- Outreach
- Mobile
- Home Based door-to-door
- Self testing (under research, not approved type)
- HTC National Campaign events

Main HTC Approach

- Implementers:
  - Public Health Sector
  - CHAM facilities
  - Private Health Sector
  - NGOs/CBOs
- Human Resource
  - Health care Workers
  - Non-Health Care Workers

Types of HIV Testing

Main HTC Types:

- Client Initiated HIV Testing and Counseling (VCT)
- Provider Initiative Testing and Counseling (PITC)
- Mandatory
- Research based – surveillance

PITC & client-initiated testing are the most commonly implemented types in Malawi

Guiding Principles of HTC

The Five Cs

- Consent
- Confidentiality
- Counselling
- Correct test results
- Continuum of Care

Forms of HTC Counseling

- Individual (VCT, PITC)
- Couple
- Family
- Child

Including in session rapid testing

Innovative HTC approaches

- HTC Week Campaign –since 2006
  - Collaborative efforts among partners.
  - Malawi was the first of its kind in SSA region.
- Home Based Door-to-Door
- Outreach & Mobile
- Moonlight

Challenges

- Inadequate implementation of quality assurance for HIV testing and counseling (safety, QC, EQC, record keeping, supervision)
- No compliance to Standard Operating Procedures (SOPs)
- No compliance to Quality Assurance (QA) issues
  - Proficiency tests, Quality control, Dried Blood Spot (DBS) test
- Untimely flow of quarterly data from districts to national level
- Limited supervision for district level site counselors
  - *focus on collecting data and re-supply of test kits*
  - *thorough review of registers not done*
  - *observation of both testing and counseling not done*
- ART Quarterly supervision reported 7% false results

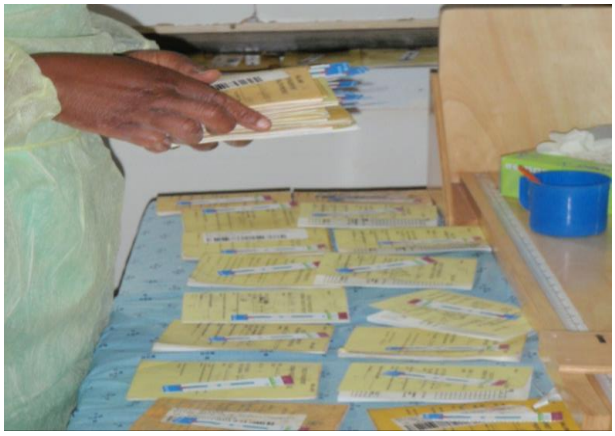
Challenges

HTC Assessment in 2012 reviewed that :

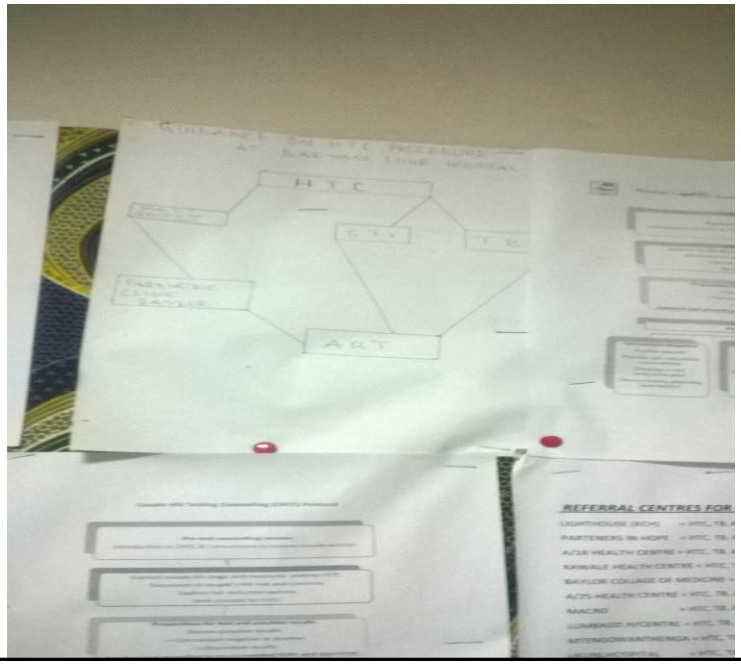
Many testers do not follow SOPs during testing:

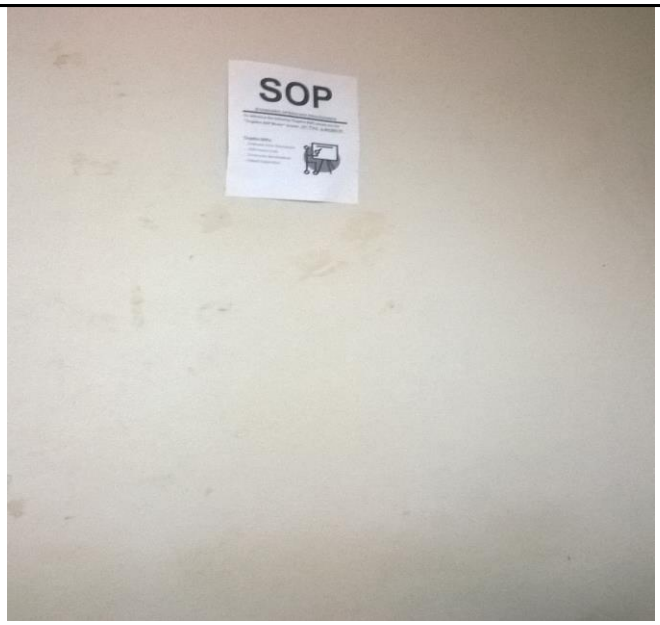
- Testers confused procedures for Determine and UniGold e.g. (Amount of samples , drops of buffer, timing)
- Poor Finger prick procedures (collecting samples)
- Discordant results not dealt with appropriately
- High volume test sites compromise procedures

Batch testing at ANC



Poor disposal of bio-medical waste





Poor Working Station

Challenges cont:

- Inadequate infrastructure especially for PITC approach
- No room thermometers to monitor room temperatures
- No stop watches
- Periodic stock out of test kits
- No mechanism in place for management of stress and burn out for counselors

Challenges cont:

- Limited follow up of client tested Pos or Neg
- Inaccurate in reading results- reading too soon or waiting too long
- Storage issues-ambiguity temperatures above (20 - 25%)
- HTC for children and adolescent not fully implemented
- Low uptake of HTC by couples
- Scale up of PITC is limited in most districts especially at Health Centre level

Challenges cont:

- Incomplete client data records
- Limited documentation on referral and linkages
- Lost to follow up of patient
- Emphasis is on numbers(quantity) not quality
- Lack of HTC leaflets for clients
- Erratic supplies at the NRL to prepare DBS
- Counselors not registered in PT program

Proficiency Testing (PT) Panel and Quality Control (QC)

- Tester logbook – not completed or missing
- Clear evidence of non-compliance for PT
  - All counselors scored same results at several sites (suggesting copying of PT results)
  - Individualized PT panels
  - PT performance should be observed before and after reconstitution after 24 hours
- Strict monitoring of QC results from all sites
  - Review of QC data over-time

Emerging Issues

- Shift from anonymous to name based testing
- Confidential name- based registers for linkages, referral and follow up
- Retesting guidelines has changed:

-Retest when client has discordant results(1st and 2nd) tests do not agree retest after 4 weeks

-HIV negative with special risks- pregnant women with high risk, STI clients, and HIV neg with on going risks should be tested yearly.

-HIV Neg with special risk within the last 72 hours- PEP repeat after 4 weeks.

-Testing for clients undergoing VMMC

Recommendations to MOH

- MOH to strengthen the supply chain management system of HIV test kits
- MOH to promote innovative approaches to increase uptake of HTC by males & couples
- MOH to strengthen the zones to address issues of trainings, monitoring & evaluation

Recommendation for testing Practices

- Clean work space
- Proper disposal and following universal safety precautions
- Re-train on finger prick procedures
- Accurately follow test procedures
- Mandatory use of timers
- Use of official registers only
- Health Edu. unit -Develop leaflets for patients

CDC recommendation 2012

Recommendations

- Adopt a name based registers to improve follow up
- Pilot study use of an oral test to further simplify congested sites
- Strengthened systems for supervision, QA integrated into national HTC/ART supervision system.
- Tester's responsibility to provide correct test results emphasized in re-training

Specific Recommendations (CHSU)

- Transition to Dried Tube Specimen (DTS) for both PT and QC
- Train testers (Re-training on RT/ PT)
- Strengthen QA for HIV testing by:

- improve production of PT samples
- Strengthen data management of PT results from the field
- Conducted Quarterly supervision on QA by CHSU

How to meet Focus Indicators in SEZ

Despite the challenges how can tingathe meet the focus indicators of :

- 90% ANC testing
- 90% Maternity testing
- 95% PITC
- Double Number of infected children in care
- 90% retention and care on ART

Tingathe assistance to MOH

- Refresher training in SEZ to maintain standards
- Strengthen/Support Quarterly Supervision for quality control at zonal and District levels
- Assist CHSU – ensure DTS samples are prepared
- Provision of equipment and SOP
- Improve Data Management- electronically
- Minor renovations of HTC rooms
- Conduct Operational research on HTC- using non blood samples like oral fluids and urine based testing (self testing)

Assistance cont:

- Assist the district to own the program
- Constitute internal quality control
- Support districts to use and interpret data
- Assist districts to improve transportation of DBS samples to improve diagnosis of infants
- Institute peer assessment
- Improve attitudes of PITC
- Assist the MOH to develop HTC QA strategy

Conclusion

- Massive scale-up in training of HTC Counselors hence the need for intensify supportive supervision and Quality Assurance (QA) to ensure adherence to standards of HTC services.
- Quality of the HTC delivery is pre-requite to its impact in both accessing clinical care, psychosocial support and behaviour change
- As Tingathe expands its program to the SEZ should address the challenges
- All counselors require ongoing support, training and skills development in order to prevent or reduce burnout, as well as to uphold ethical practices in HTC.

EXPANSION TO SEZ

- Expansion to SEZ can be achieved through ensuring that service providers have the necessary capacity , structures as well as systems to deliver increased access to quality HTC services

Review Questions

1. What does routine opt-out PITC mean?
2. What is an example of external quality assurance?
3. What is an example of internal quality assurance?
4. What are three roles you have as an HTA in quality assurance?

5 HIV DIAGNOSIS

OBJECTIVES

By the end of Unit 5, you should be able to:

- Define HIV Testing and Counseling (HTC) and list the two main types of HIV tests that are routinely available in Malawi
- Explain how a rapid test works and when it is appropriate to use one
- Explain how a DNA PCR test works and when it is appropriate to use one
- Describe why confirmatory testing is important
- Understand how to use the prevention of mother-to-child transmission of HIV testing flow charts
- Understand the definitions of HIV-exposed, HIV-infected and HIV-uninfected
- Describe different reasons that it is important to be tested early and often

VOCABULARY

CONFIRMATORY TEST	HIV test done to confirm (make sure of) someone's HIV status
EXPOSED	An infant born to an HIV-infected mother who has been exposed to HIV through pregnancy, delivery, and/or breastfeeding, but their HIV status **is not yet known**
HTC	HIV Testing and Counseling; also known as Voluntary Counseling and Testing (VCT)
WINDOW PERIOD	The time period between becoming infected with HIV and when the HIV can be detected by a rapid test

H T C HIV testing and counseling

In order to diagnose that a person has HIV, a blood test must be done. There are two kinds of tests that are routinely used in Malawi:

- Rapid Antibody Test (Rapid Test)
- DNA PCR

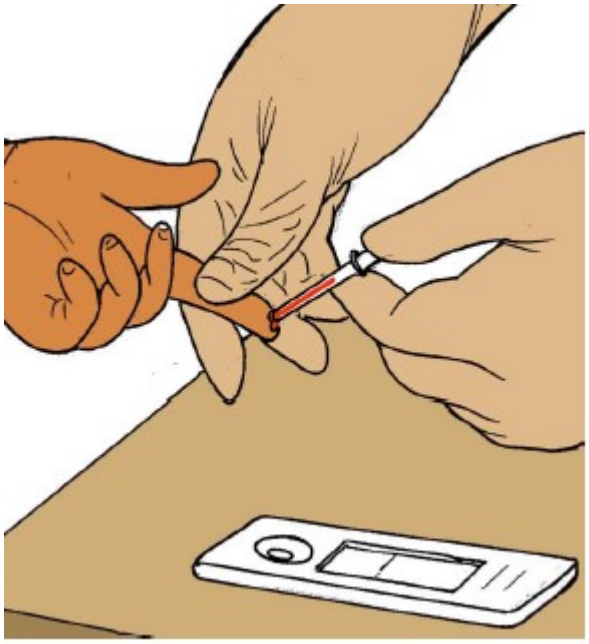
It is one of your responsibilities as a HTA to encourage and counsel your patients and their families to be tested early and often at their health facility, as well as perform testing for those who are willing. Having a blood test is the only way to accurately diagnose HIV.

HTC is also known as VCT (Voluntary Counseling and Testing). Provider-initiated testing and counseling (PITC) is the term for testing when the provider offers the test to the patient.

RAPID TEST

RAPID TEST QUICK FACTS

- Rapid tests are used to test for HIV in persons **12 months or older**
- Rapid tests check for HIV antibodies in the blood
- It takes approximately 10-15 minutes for the result



The rapid test detects antibodies to HIV in the blood.

Antibodies are special proteins in the body. These antibodies are part of the body's immune system that help to fight diseases when you are sick. When a person becomes sick with an illness like HIV, the body makes special antibodies to fight that specific illness. A person with HIV will make HIV antibodies to fight the HIV. These HIV antibodies are the ones that are detected in a rapid test.

It can take several months (window period) for the body to make antibodies to the HIV virus. This is why right after someone has become infected they might still have a non-reactive rapid test. The person has HIV, but has not made antibodies yet, so their rapid test is non-reactive. This is why it is important that the person test again in the future.

INTERPRETING RAPID TEST RESULTS

A **REACTIVE** result means that the person is HIV-infected.

A **NON-REACTIVE** result does not mean the person is uninfected, it just means that there are no HIV antibodies in the blood at that time. If the person is at risk, the person should be tested again in the future.

DNA PCR TEST

DNA PCR TEST QUICK FACTS

- DNA PCR tests are used to test for HIV in persons **younger than 12 months**
- DNA PCR tests check for the HIV virus directly, not antibodies
- DNA PCR is also called dried blood spot (DBS) test
- It can take anywhere from 2 weeks to 2 months for the test result

When a woman who is living with HIV is pregnant, her body is creating antibodies to fight the HIV. She can pass these antibodies to her child during pregnancy. When the child is born, the child will be born with the mother's antibodies in his or her blood.

These antibodies usually stay in the child's body for the first 12 months of life. If a rapid test is done on a child born to an HIV-infected mother before the baby is 12 months old, the rapid test result may be reactive because it is detecting the mother's antibodies that were passed on to the child. Therefore, the only way to accurately test an infant born to an HIV-infected mother is with DNA PCR because it tests directly for the HIV virus in the blood, not antibodies.

To take a DNA PCR test, a sterilized needle is used to prick the bottom of the infant's foot. Small samples of their blood are then placed on a special piece of paper. The paper must then be sent to the laboratory for further analysis. The result from a DNA PCR may take up to two months to return to a health facility. It is important that HTAs follow up these results and ensure all patients receive them in a timely manner.

A DNA PCR test must be done for children 12 months or younger because it detects the virus directly, and not antibodies.

INTERPRETING DNA PCR TEST RESULTS

A **POSITIVE** result means that the person is HIV-infected.

A **NEGATIVE** result means the person was not infected when the test was done. However, if an infant is still breastfeeding, s/he can still become infected through breast milk. This is why it is important to test again in the future and watch for other signs and symptoms of HIV.

Remind your patients that they must return to the health facility to collect the results of a DNA PCR test. This is important so that if an infant is found infected, he or she can start treatment as soon as possible.

CONFIRMATORY TESTING

MOH GUIDELINES

The MoH requires confirmation of HIV infection in patients by doing a second HIV test. This rules out any possibility of mixed up test results or fraudulent access to ART.

Confirm HIV infection:

- At enrollment into HIV care services **OR**
- Before starting ART

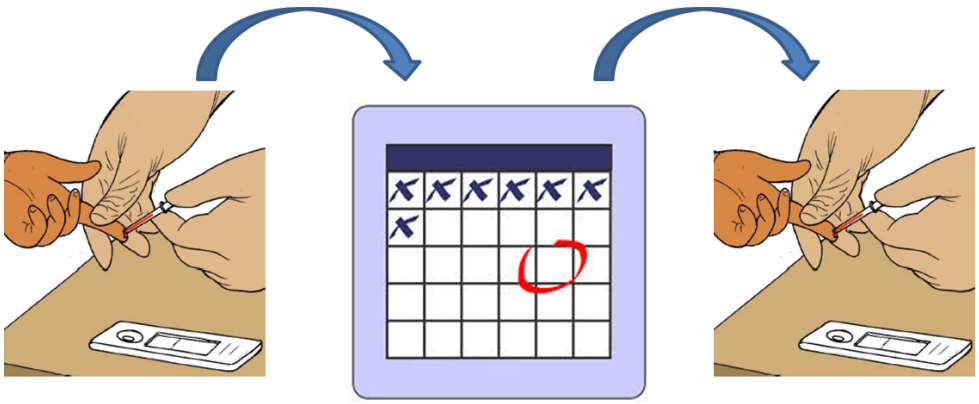
Do not delay ART initiation if there are no HIV test kits available at the health center. Instead, do confirmatory testing at the patient's next appointment or when test kits are available.

WINDOW PERIOD

If a person is exhibiting signs and symptoms of HIV, it is important to have them tested again even if he or she recently tested HIV-negative. This is due to the window period of the virus.

> **WINDOW PERIOD:**
> **The time period between becoming infected with HIV and when the HIV can be detected by a rapid test**

The window period is anywhere from four weeks to three months. One of your responsibilities as an HTA is to help your patient determine when they should come back to be re-tested. A re-test, or confirmatory test, after the duration of the window period will tell the patient their true HIV status.



WINDOW PERIOD

It is also important to remember being tested once in a person's life is not enough. Patients should be tested multiple times throughout their lives, especially when they are at high risk of being infected.

Remind your patients to be re-tested after the window period and/or after engaging in any of the following activities:

- Having unprotected sex
- During pregnancy and after childbirth
- After breastfeeding

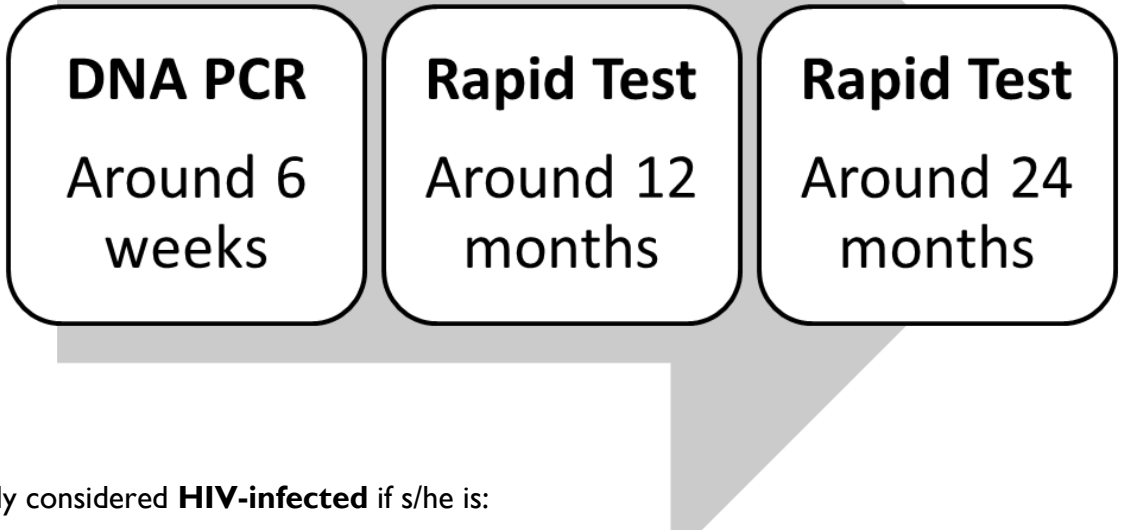
PMTCT TESTING GUIDELINES

A mother is at risk of transmitting HIV to her child during pregnancy, childbirth, and breastfeeding. Until the infant is finished breastfeeding and no longer at risk of getting HIV, he or she is considered exposed.

EXPOSED:
An infant of an HIV-infected mother who has been exposed to HIV during pregnancy, delivery, and/or through breastfeeding, but their true HIV status is *not yet known*

An infant must go through a series of HIV tests throughout the first two years of his or her life in order to correctly diagnose if s/he is HIV-infected or not. A DNA PCR test should be done around 6 weeks followed by rapid tests at around 12 and 24 months of age. Any negative HIV test before the child is 24 months old (or 6 weeks after finishing breastfeeding) **does not mean** that the child is definitely not HIV-infected. An infant must go through the whole series of HIV tests in order to determine his/her true HIV status.

An unscheduled HIV test can be requested at any time if the infant is showing signs and symptoms of HIV. In this case, it is important that the infant get an HIV test and further assessment as soon as possible.



A child is only considered **HIV-infected** if s/he is:

- Younger than 12 months with a positive DNA PCR result **OR**
- 12 months or older with a reactive rapid test result

If a child is HIV-infected and less than 24 months old he or she should start treatment immediately. Confirmatory testing should still be done at 12 and 24 months (or 6 weeks after finishing breastfeeding).

A child is only considered **not HIV-infected** when he or she:

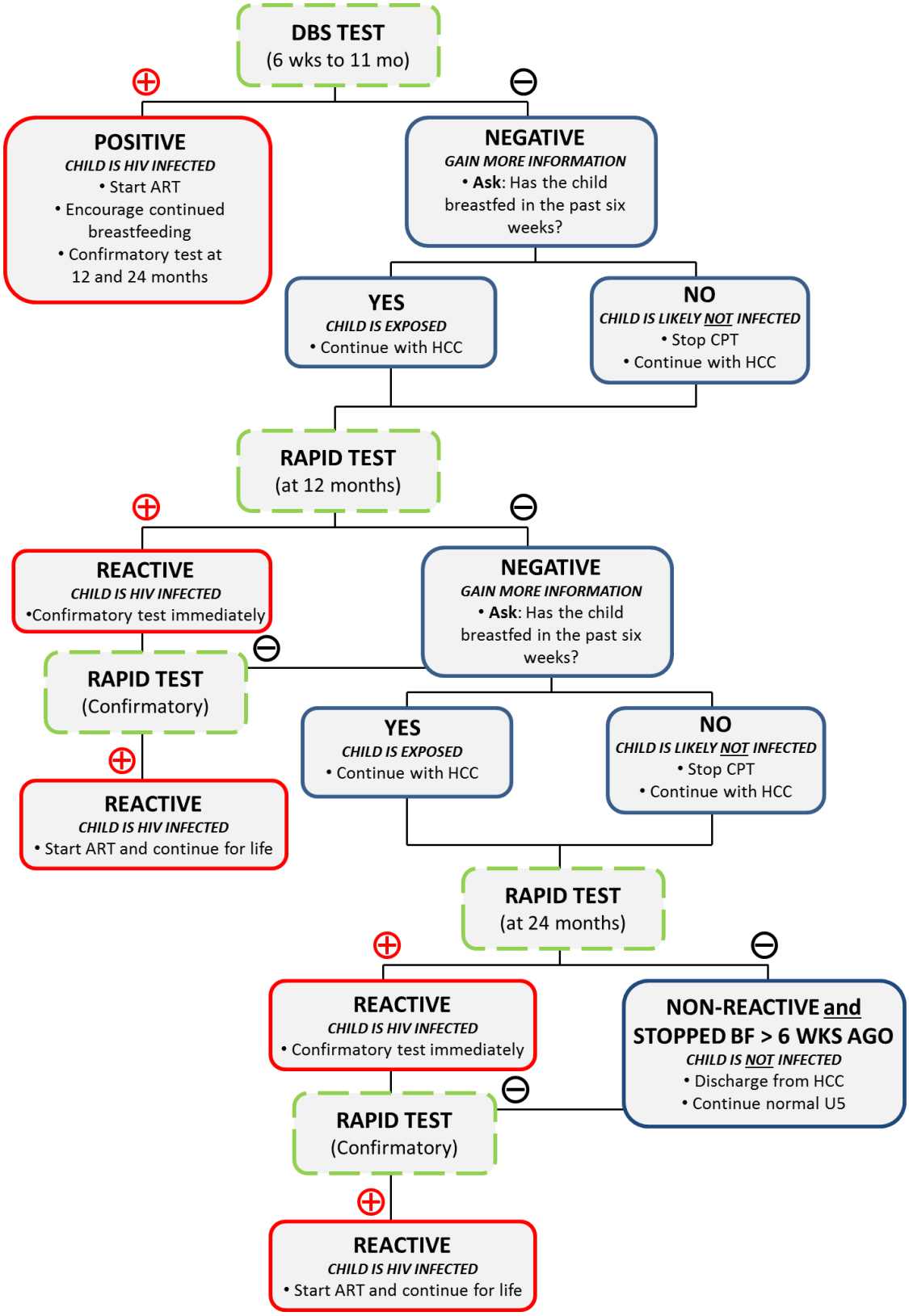
- Tests negative for HIV at 24 months of age (or 6 weeks after finish breastfeeding)

If a child is considered definitely not infected, s/he should be discharged from PMTCT care, but should continue to attend routine under-five clinic visits.

EXPOSED INFANT TESTING

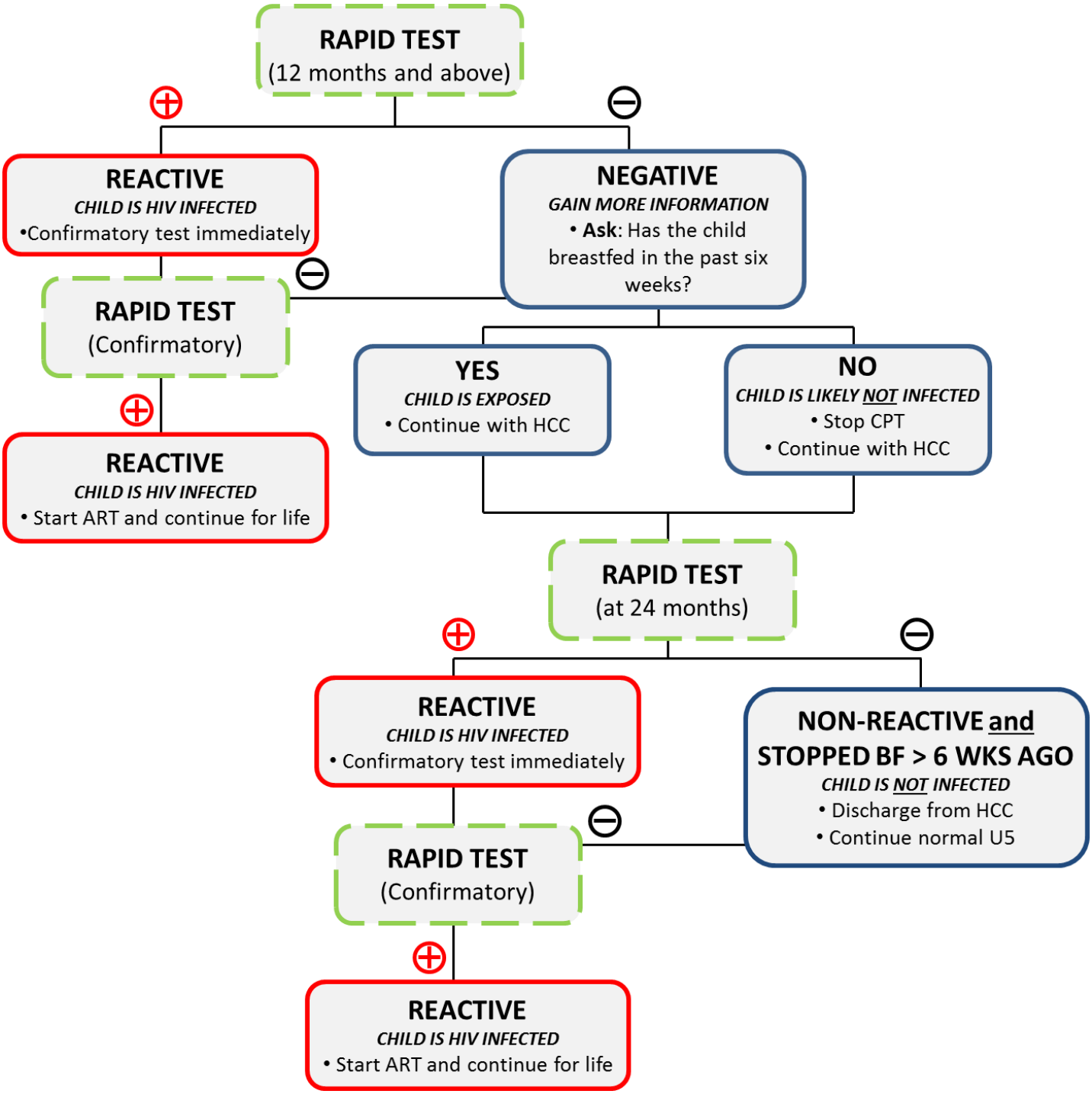
All exposed children must go through a series of tests to correctly diagnose if the child is HIV-infected or not. The following flow charts will help you decide the steps you need to take to make sure the true status of all exposed infants is confirmed by the time they are two years old.

PPTCT TESTING FOR INFANTS BELOW 12 MONTHS OF AGE



EXPOSED INFANT TESTING

PPTCT TESTING FOR INFANTS 12 MONTHS AND OLDER



BARRIERS TO TESTING

Many patients do not want to be tested for HIV for many reasons. It is part of your responsibility assist in encouraging your patients to get their families tested. You should advise them about all of the benefits of being tested for HIV and knowing their status.

In addition, before you begin counseling the patient it is important to understand the reasons why he or she does not want to be tested. If you know their fears of being tested, you can address those fears and explain ways you can help.

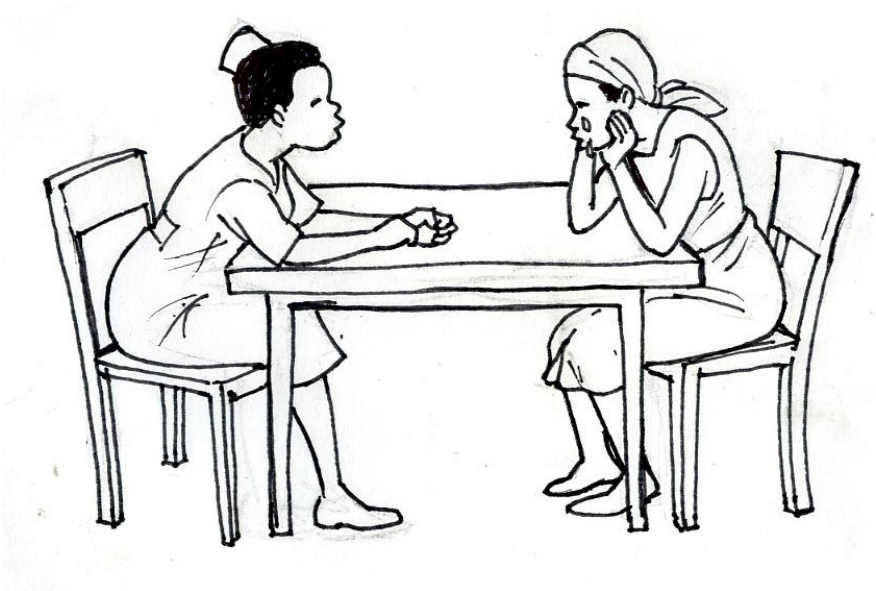
Listed below are a few examples of reasons people do not want to be tested for HIV.

Reasons Adults Do Not Want to be Tested

- Scared of knowing their status
- Do not think they are infected unless they are sick
- Scared of taking the test (taking blood)
- Do not want to think about mistakes they may have made in their lives
- Do not want neighbors or their spouses to find out their status
- Do not know how HIV can be treated if they are infected

Reasons Adults Do Not Bring their Children in to be Tested

- Scared the child will become overcome with grief if they know their status
- Scared the child will reveal their status to everyone and then people will stigmatize the family
- Scared the child may criticize the parents– asking them how and why they have tested positive
- Think that if the child is positive, there is no hope for their future
- Think there is no reason for testing until the child becomes sick



TESTING EARLY AND OFTEN

Always encourage your patients to be tested early and often. Use some of the points below to help convince mothers to have their children tested, spouses to get tested together, and all members of the family to be tested!

GET TESTED EARLY

- The earlier a person knows that they have HIV, the earlier they can begin treatment. ART works better when started earlier.
- If a person waits to get tested until s/he becomes sick, that illness may damage their body. Getting tested early means getting treatment early and preventing sickness in the first place.
- In children, HIV progresses much faster than in adults, so it is important to have them tested early in order to start them on treatment early.
- The earlier a person finds out that s/he has HIV, the less likely s/he is to spread it to others. Once informed that they have the virus, extra precautions can be taken to prevent transmission.

GET TESTED OFTEN

- If a person is tested during the window period, their rapid test will show up negative although s/he may be HIV-infected. It is important for the person to be tested again in a few months to confirm their test.
- Pregnant women should be tested multiple times throughout their pregnancy and while they are breastfeeding their child. If a woman contracts HIV during this time, the chance is high that the virus will be passed to the child.
- If a person is showing signs and symptoms of HIV s/he should be tested again, even if s/he was tested recently. The original test may have been done during the window period.
- Children get sick faster than adults, so it is important to request an HIV test to be done as soon as possible if a child is showing signs and symptoms of HIV.

SUMMARY

KEY POINTS

- HIV Testing and Counseling (HTC) centers should be available at all health facilities.
- HIV testing can be done with either a rapid test or a DNA PCR test.
- Rapid tests check for HIV antibodies in the blood and are appropriate to use on any person 12 months and older. If a rapid test is done on an infant born to an HIV-infected mother, the result may be positive because it is detecting the mother's antibodies; therefore, it is not showing the actual HIV status of the infant. This is why DNA PCR tests are used for exposed infants under 12 months old.
- DNA PCR tests directly for the HIV virus, not antibodies, and is used to test infants from 6 weeks to 12 months old.
- All patients should have a confirmatory test before starting ART.
- PMTCT guidelines require an infant to be tested at least three times– a DNA PCR test at around 6 weeks and rapid tests at around12 and 24 months (or 6 weeks after finishing breastfeeding).
- The official status of exposed infants can not be determined until the final rapid test is done at 24 months (or 6 weeks after finishing breastfeeding).
- It is important to advise patients who are at high risk of being infected with HIV to be retested after the window period to confirm their HIV status.
- There are many barriers which prevent patients from wanting to be tested, mainly fear of their status and discrimination. Try to understand these barriers and counsel and support patients so they can overcome them.
- It is important to be tested early and often for HIV to receive timely treatment and remain healthy, and take appropriate precautions to prevent transmission.

REVIEW QUESTIONS

(Cases 1-4) For the following case study questions, read the case carefully and answer each of the questions with the best answer.

Case #1: You are screening women at EPI and have come across one who is HIV-infected, but her one year old child has not been tested.

1. Which type of testing will the child receive?
    a. Rapid test
    b. DNA PCR test
2. The child's HIV test was negative. Which of the following is the best way to classify the child's HIV-status?
    a. Exposed, if the child is still breastfeeding
    b. HIV-infected
    c. HIV-uninfected
    d. Exposed, if the child has stopped breastfeeding
3. The child is still breastfeeding. When should the child receive a confirmatory test?
    a. The child does not need a confirmatory test
    b. At 24 months or 6 weeks after stopping breastfeeding
    c. In 6 months
    d. In 6 weeks

Case #2: A breastfeeding woman presents at STI clinic and is tested for HIV.

1. Which type of testing should the woman receive?
    a. Rapid test
    b. DNA PCR test
2. The woman's test result was reactive. Which of the following is the best way to classify the woman's HIV-status?
    a. HIV-infected
    b. Exposed, until she finishes breastfeeding
    c. HIV-uninfected
3. Which of the following is the first priority for caring for this patient?
    a. Starting her on ART
    b. Assessing her nutritional status
    c. Checking her CD4 count
    d. Disclosing her status to her spouse

Case #3: A father is confused about why his infant had to be tested with a different HIV test than him.

1. Which test will be used for the father?
    a. Rapid test
    b. DNA PCR test
2. Which of the following is the best explanation for the differences between a rapid test and a DNA PCR test?
    a. The DNA PCR tests for the actual virus, whereas a rapid tests test for antibodies
    b. The DNA PCR tests for antibodies, whereas a rapid tests test for the actual virus
    c. The DNA PCR tests for CD4 cells, whereas a rapid tests test for the actual virus
    d. The DNA PCR tests for antibodies, whereas a rapid tests test for the CD4 cells
3. Which is the most likely age of the infant if the father and infant have to have different tests?
    a. Between 6 weeks and 12 months old
    b. Between 12 months and 24 months old
    c. Younger than 6 weeks
    d. Between 6 weeks and 24 months

REVIEW QUESTIONS

(Qs 4-5) For the following multiple choice questions, read the description and choose the best HIV status of the child.

4. 23 months, DNA-PCR from 6 weeks of age was negative, rapid test at 23 months is reactive, still breastfeeding
    a. Infected
    b. Exposed
    c. Not infected
5. 9 months, first DNA-PCR pending, rapid test reactive, still breastfeeding
    a. Infected
    b. Exposed
    c. Not infected

(Q6-7) For the following short answer question, use the lines below to completely answer the question.

5. What does HTC stand for?

    _____

6. Explain which test a child under one year must have and why.

    _____

    _____

    _____

    _____

6 HIV TREATMENT

OBJECTIVES

By the end of Unit 6, you should be able to:

- Define antiretroviral therapy (ART)
- Explain the criteria used to determine if someone is eligible to start ART
- Describe what needs to be done before a patient starts ART
- Describe what pre-ART counseling involves
- Understand the role of a child's weight in ART dosing
- Explain the PMTCT medication regimen for both mothers and infants
- Describe cotrimoxazole preventive therapy (CPT) and its importance

VOCABULARY

ADHERENCE	Being devoted to doing something regularly
ART	Antiretroviral treatment; using a combination of antiretroviral (ARVs) medications to treat HIV
CD4 CELL	A type of white blood cell in the body. HIV destroys CD4 cells. A CD4 count is done to measure the number of CD4 cells in the body.
CPT	Cotrimoxazole preventive therapy; drug taken to prevent certain types of opportunistic infections
ELIGIBLE	Meeting the criteria to be chosen for something
FIRST LINE	ART regimen given when patients first start ART and do not have a resistant virus
SECOND LINE	ART regimen given when first line ART no longer works

A anti
R retroviral
T therapy

ART is antiretroviral therapy, or a combination of antiretroviral drugs (ARVs) which are used to treat HIV. **ART does not cure HIV**, but helps to stop HIV from multiplying in the body. Once a person begins ART, it should be taken for life.

ART ELIGIBILITY

A clinician or nurse will decide who is eligible for ART based on the current universal treatment guidelines, the patient's WHO Stage and/or the patient's CD4 count. The Malawi Ministry of Health developed the country's guidelines with recommendations from the World Health Organization (WHO).

UNIVERSAL TREATMENT GUIDELINES

Universal treatment guidelines advise that the following persons are automatically eligible to receive ART:

- All HIV-infected children under five years of age
- All HIV-infected pregnant women
- All HIV-infected breastfeeding women

All these persons are eligible to start ART. It does **not** matter what their CD4 or WHO stage is.

WHO STAGING

The WHO defined four stages of severity for HIV infection. A clinician or nurse determines the WHO stage by taking a careful medical history and physical exam of the patient. They will then assign a stage (1-4) which determines how much damage the HIV has done to the immune system. Staging can be used to determine whether the patient is eligible to start ART. The stages are as follows:

Stage 1: Asymptomatic (no symptoms)
Stage 2: Mild Symptoms
Stage 3: Advanced Symptoms
Stage 4: Severe Symptoms

Patients in Stages 3 or 4 are **always** eligible to start ART. Patients diagnosed as either Stage 1 or 2 must meet other criteria, like falling under universal eligibility, to be eligible for ART.

CD4 COUNT

CD4 cells are a type of white blood cell which HIV destroys. The number of CD4 cells (CD4 count) is determined through a blood test. The higher the CD4 count, the stronger the immune system. A CD4 count should be done every three months as prescribed by the clinician until the person is identified as eligible for ART. A person is eligible to start ART if they meet the following CD4 count requirements:

- Are over 5 years and old and their CD4 ≤ 500 (CD4 count **less than or equal** to 500)

PRIOR TO STARTING ART

CONFIRMATORY TESTING

The Ministry of Health requires confirmatory testing before starting ART. This is to confirm (make sure) that the patient either does or does not have HIV in case there was an error in the first test. There should never be a delay in starting ART even if there is a shortage of test kits. If this occurs, start the patient on ART and do the confirmatory test when test kits are in stock.

Children 0 to 24 months old with a positive HIV test (either DNA PCR or rapid) do **not** need to wait for the results of a confirmatory test before starting ART. Instead they should be started on ART immediately. All children below 2 years should have two confirmatory rapid tests at 12 months and again at 24 months of age (or six weeks after stopping breastfeeding).

PRE-ART COUNSELING

Counseling patients and their guardians before starting ART is important so that they understand HIV, the medication and is importance. A big part of your role as HTA will be to help families understand the following key points so that they can help themselves and their children remain adherent to ART:

1. **Commitment to Lifelong Adherence**
   Patients need to understand that when they begin ART, they will continue it for life. Not taking their ART or not taking it correctly can lead to sickness and/or drug resistance. To do something for life is a big commitment, but making sure the patient understand that the medication is important and giving the patient some ideas of how to remain adherent can make it less scary.

2. **Dosage and Interval of Taking ART**
   The dosage and interval of taking ART medications should be explained. Patients need to understand how to take their medication properly– how much, how often, and the consequences of not doing so. Knowing how to take medication properly can help patients stay adherent and healthy. Encourage your patients to ask their nurse or clinician questions if they do not understand.

3. **Caregivers/Guardians for Children and Adolescents**
   Children are 100% dependent on their caregivers. If a caregiver fails to give a child his or her ART for any reason, the child misses the dose. It is extremely important that caregivers understand that the child is completely dependent on them. Adolescents and teenagers also need assistance.

   If possible, children aged under 18 should have <u>two</u> reliable, stable caregivers who know about the ART the child is taking and know how to administer the medication.

4. **Temporary Side Effects of ART**
   There can be side effects from taking ART, but most of them will go away within one month. Encourage your patients to remain vigilant and adherent during this time.

5. **Response to Side Effects**
   Some side effects from ART medications can be life-threatening. Ensure patients know that if they are experiencing serious side effects from their medication, they should go to the clinic **immediately**. Explain to patients that there are many different kinds of ART and that the clinician will work with them to prescribe them the ART that is best for them.

ART REGIMENS IN MALAWI

In all ART regimens, there needs to be a combination of at least three medications (ARVs) used together to fight against the HIV virus.

Many times these three medications are combined into one pill that a patient may take once or twice a day. Sometimes the medications come in multiple different pills. Depending on the ART regimen, the patient may have to take many different types of pills or just one. The clinician or nurse will determine which regimen is right for the patient.

In Malawi there are currently three types of regimens:

1. Standard First Line Regimens
2. Alternative First Line Regimens
3. Second Line Regimens

STANDARD FIRST LINE REGIMENS

These regimens are those most commonly used in Malawi. We will be looking at two standard first line regimens in this unit - one for adults (5A Regimen) and the other for children (2P Regimen). Patients will usually be prescribed these regimens when first starting ART. If serious side effects occur, the clinician may prescribe alternative first line regimens.

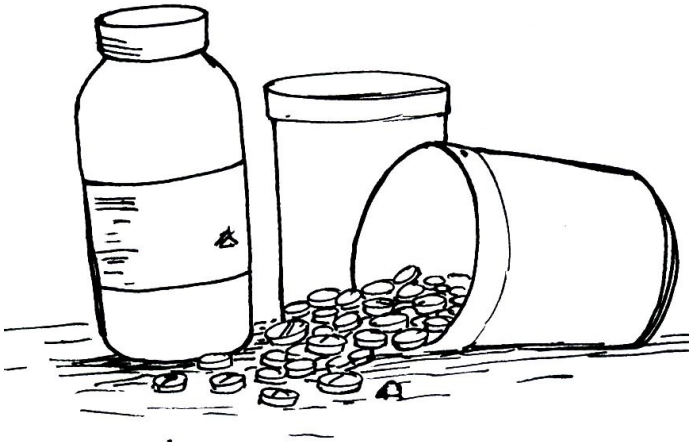
ALTERNATIVE FIRST LINE REGIMENS

Sometimes a patient may have serious or unpleasant side effects from their ART, or the patient may have special conditions. For these cases, the clinician may decide to change the medication from the standard first line regimen to an alternative first line ART regimen.

SECOND LINE REGIMENS

A patient will take a second line regimen only when s/he has failed a first line regimen due to drug resistance (treatment failure). If a patient fails the second line regimen due to treatment failure, there are currently no other options for ART in Malawi.

Resistance develops more quickly when there is poor adherence to ART, so it is important to always encourage and help your patients take all their ARTs as prescribed. Forgetting even one dose in a month can lead to resistance.



ART AND DOSING

The dosage, or amount of medication, that a patient takes depends on many different factors. For children, one of the main factors which determines dosage is their weight. The dosing must be adjusted for weight gain or loss to prevent unwanted side effects.

- If the dose is too low, the HIV virus can develop resistance.
- If the dose is too high, the patient may be overdosed and have more side effects or toxicities.

Clinicians are the only people who can change the dosage of a patient.

Caregivers should be sure the weight and height of their child is taken at **every clinic visit**. They should ask the clinician about a change in dosage if they observe a significant weight change as well. The clinician will then determine if the dose needs to be adjusted and do so if necessary.

STARTER PACK

A starter pack is given for some regimens when a patient first starts ART. A starter pack is a special type of medicine dosage which allows the patient's body to get used to one of the medicines in the ARVs. In a starter pack, one ARV (of the combination of three) is given at a smaller dosage. Morning and evening doses come from two different pill bottles. Patients will be instructed to take the starter pack for two weeks. After the two weeks are finished, the nurse or clinician will examine the patient and change the medicine to a regular ARV dosage.

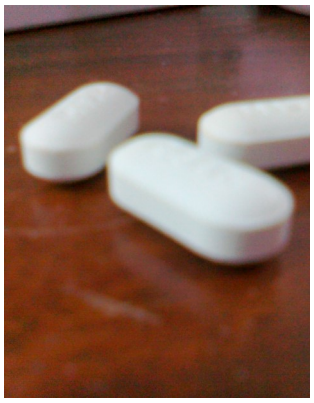
Starter packs help the patient's body to slowly get used to ART in order to reduce the risk of side effects.

It is important to know which regimens have a starter pack and which do not so that you can counsel and explain the regimens to your patients if they have questions.

STANDARD FIRST LINE ADULT ART REGIMEN

REGIMEN 5A QUICK FACTS

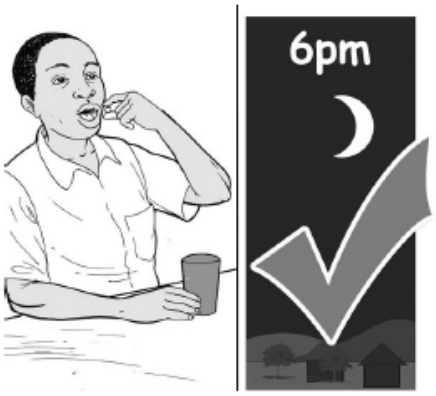
- Standard first line regimen for all adults 15 years and older
- Combination of three drugs: Tenofovir (TDF), Lamivudine (3TC), and Efavirenz (EFV)
- Taken once per day
- Side effects including headaches, dizziness, and nightmares should go away within one month and patients should continue to take their ART during that time.



Regimen 5A (TDF/3TC/EFV) is made up of a combination of three drugs:

1. TDF: Tenofovir
2. 3TC: Lamivudine
3. EFV: Efavirenz

INSTRUCTIONS



- No starter pack needed
- One time per day
- It is recommended to take this medication before bed to reduce the side effects

TEMPORARY SIDE EFFECTS

There are side effects associated with all medication. As a patient adjusts to his/her medication, they may experience some of the following side effects:

- Dizziness
- Headaches
- Nightmares

These side effects normally stop after one month of taking ART. It is important that as an HTA, you tell your patient that these side effects are temporary and that they should continue to take their ART as prescribed. This may be difficult for some patients, so it is important to help them with adherence during this time.

SERIOUS SIDE EFFECTS

Some people may experience more serious side effects from their ART, such as:

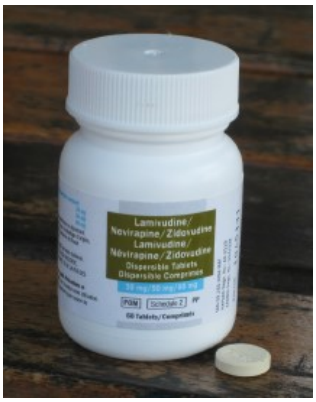
- Jaundice (yellow eyes)
- Psychosis/severe mood changes
- Rash
- Vomiting/Severe Nausea
- Abdominal Pain
- Gynaecomastia/changes in body shape

These side effects mean that the regimen prescribed may not be the best one for the patient. ***You should encourage your patient to go to the health center immediately.*** The clinician can then help him/her to find the regimen that is best for them.

STANDARD FIRST LINE CHILD ART REGIMEN

REGIMEN 2P QUICK FACTS

- Standard first line regimen for all children under 15 years
- Combination of three drugs: Zidovudine (AZT), Lamivudine (3TC), and Nevirapine (NVP)
- Taken twice per day– once in the morning, once at night



Regimen 2P (AZT/3TC/NVP) is made up of a combination of three drugs:

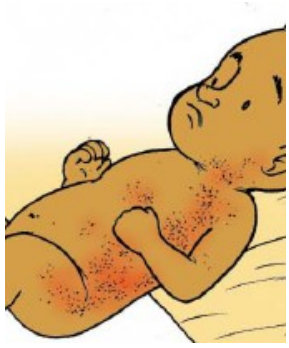
1. AZT: Zidovudine
2. 3TC: Lamivudine
3. NVP: Nevirapine

INSTRUCTIONS

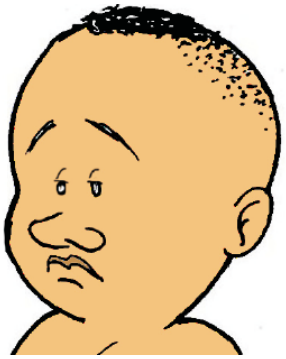
- Needs a starter pack
- Twice per day: one morning and one night

POSSIBLE SERIOUS SIDE EFFECTS

Any side effect seen in a child needs immediate attention. Below are a few examples of serious side effects of ART seen in children. ***You should encourage your patient to go to the health center immediately if any side effect is observed.*** The clinician can then help him/her to find the ART regimen that is best for them.



Skin Rash



Anemia
(weakness, pallor, fast heart beat)

PMTCT ART REGIMEN

Use the following guidelines and flowchart to help you understand the PmTCT regimens for both the mother and her infant.

PMTCT ART REGIMEN FOR PREGNANT AND BREASTFEEDING MOTHERS

- If the woman is already on ART when enrolled in the program, she should continue her ART as prescribed.
- If a woman is not on ART, help her start as soon as possible. The earlier the mother starts on ART, the lesser the chance of transmission is to the child.
- It is very important to encourage good adherence in pregnant and breastfeeding women.
- If the woman is unable to practice good adherence, the virus may develop resistance. It is then possible for the resistant virus to be passed her infant.

KEY EVENTS IN PMTCT FOR INFANTS

Birth

- Begin giving NVP syrup daily until infant is 6 weeks old (dosage depends on birth weight)
- An infant can begin to take NVP anytime between birth and 4 weeks, but should be encouraged to start as close to birth as possible

6 Weeks

- Stop NVP
- Start CPT (dosage depends on weight)
- Get vaccines
- Have DNA PCR taken

3-12 Months

- Return to the clinic for DNA PCR results – if positive, start ART (Regimen 2P) immediately
- Continue giving CPT regardless of DNA PCR test result
- Monitor for HIV signs and symptoms – if present, seek care immediately

12 Months

- Do rapid HIV test - if positive, start ART (Regimen 2P) immediately
- Continue giving CPT regardless of rapid test result
- Monitor for HIV signs and symptoms – if present, seek care immediately

24 Months

- Do rapid HIV test - if positive, start ART (Regimen 2P) immediately and continue CPT
- If test is negative - stop CPT, discharge from PMTCT care and continue with regular under five appointments

PMTCT ART REGIMEN

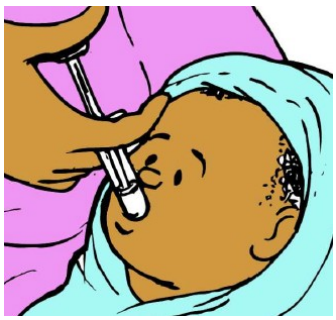
Nevirapine (NVP) syrup is given to all babies born to HIV-infected mothers (exposed infants). NVP helps to prevent the infant from becoming infected during the most risky time of possible transmission, the first six weeks of their life. It is very important that NVP adherence is good to protect the baby from getting HIV.

Pregnant women should get NVP syrup from antenatal clinic (ANC) as soon as they know they are HIV-infected, so they can begin to give it to their child immediately after s/he is born. The baby should continue to be given the syrup once daily until he/she is 6 weeks old. If a mother presents late to care after birth, the infant can still be started on NVP if s/he is less than 4 weeks old, but will still stop at 6 weeks of age. The earlier the infant starts NVP syrup, the more protection s/he has from HIV.

For all side effects, refer the patient **immediately** to the health facility for follow-up. Advise the caregiver not to wait after seeing side effects as some are life-threatening. The most common side effect i s

NVP QUICK FACTS

- NVP syrup should be provided at ANC before birth
- NVP is started as soon as possible after the baby is born and is stopped when they are 6 weeks of age
- Dosing for NVP depends on birth weight
- NVP syrup can be started anytime between birth and 4 weeks of age
- For all side effects, especially rash, refer the patient immediately to the health facility



INSTRUCTIONS

1. Measure out the appropriate dose from the bottle using a syringe.

Birth Weight	Dosage
2500 grams or less	1 mL once daily
More than 2500 grams	1.5 mL once daily

2. Squirt the syrup slowly into the back or side of the infant's mouth.
3. Rinse the dosing syringe carefully with clean water after every use and let air-dry.
4. Store NVP syrup bottles and dosing syringe in a dark, cool, dry, clean place.
5. Bring all NVP bottles (both used and unused) back to the health facility at the 6 week vaccination/DNA PCR test visit.

CPT

Cotrimoxazole preventive therapy (CPT) is also referred to as Bactrim. CPT protects against certain types of pneumonia, diarrhea, malaria, and other HIV-related diseases. The body's immune system is already weak from the HIV virus attacking its CD4 cells. CPT helps the body's immune system fight some diseases so that the symptoms are not as severe.

CPT can be combined with ART, tuberculosis treatment and isoniazid preventive treatment (IPT). It is also safe to take during pregnancy, but not in combination with sulphadoxine/pyrimethamine (SP). Patients with an allergy to CPT or SP, are jaundiced or have problems with their kidneys should not receive CPT.

All eligible HIV-infected patients should begin taking CPT as soon as they know they are HIV-infected. CPT should be started regardless the person's CD4 count or WHO staging. They should begin taking CPT immediately and continue for life. All HIV-exposed children should start CPT when they are 6 weeks old and continue taking it for life, or until they are confirmed uninfected and discharged.

A clinician will determine the dosage for all patients. CPT dosage depends on the weight of the patient.

CPT QUICK FACTS

- CPT protects against diseases the immune system is too weak to fight like certain diarrheas and pneumonia
- CPT should be taken by all HIV-infected patients for life, regardless of their other medication, CD4 count or WHO status
- HIV-exposed infants should take CPT starting at 6 weeks of age and continue for life, or until they are confirmed uninfected

SUMMARY

KEY POINTS

- Antiretroviral treatment (ART) is a combination of different medications (antiretrovirals/ARVs) used to treat HIV.
- A clinician determines whether a patient is eligible to start ART based on the current universal eligibility guidelines, the patient's WHO stage, and/or their CD4 count.
- Before a patient starts ART, they need to have a confirmatory test and be counseled on appropriate issues.
- Counsel patients before starting ART so that they understand the commitment to ART is for life and that good adherence means taking ART as prescribed, every day. Ensure patients know how to take their medication, the need for a child to have two caregivers, and the difference between temporary and serious side effects of ART.
- Children's ART dosing is based on their weight. It is important that the weight of all children is recorded at every clinic visit.
- Most patients in Malawi will start on a first line regimen: 5A Regimen (for adults) or 2P Regimen (for children). There are alternative first line regimens for those experiencing serious side effects to 5A/2P. Second line regimens are available if first line regimens fail due to a resistant virus.
- HIV-infected mothers should be adherent to their ART and CPT for life for their own health and to prevent transmission to their children and sexual partner(s).
- Exposed infants should be given NVP syrup starting at birth and stop after 6 weeks. CPT should be given starting at 6 weeks and continued for life, unless the child is confirmed uninfected. Any child found HIV-infected should start ART as soon as possible.
- All eligible HIV-infected patients should take CPT for life to protect them from certain types of diarrheal and respiratory illnesses.

REVIEW QUESTIONS

(Cases 1-2) For the following case study questions, read the case carefully and answer each of the questions below with the best answer.

Case #1: A breastfeeding woman has just been diagnosed with HIV. She has an 8 week old, exposed infant.

1. Is the infant eligible to be taking Bactrim?
    a. Yes
    b. No
2. When is the best time for exposed infants to begin taking Bactrim?
    a. At birth
    b. At 6 weeks
    c. At 12 months
    d. The infant will not start Bactrim until found HIV-infected
3. For how long should an exposed infant take Bactrim?
    a. For 6 weeks from birth
    b. For 6 weeks starting at 6 weeks of age
    c. For life starting at 6 weeks of age, or until found HIV-uninfected at which time they will stop
    d. Exposed infants never take Bactrim
4. What is another name for Bactrim?
    a. IPT
    b. CPT
    c. ART
    d. CRT

Case #2: A pregnant woman is being counselled at ANC about the importance of NVP for her infant.

1. Which of the following best describes the role of NVP?
    a. Protects against diseases the immune system is too weak to fight
    b. Helps prevent the child from becoming infected with HIV
    c. It is a replacement for ART
    d. Is treatment for TB and other infections
2. When should the woman start to give NVP to her infant?
    a. As soon as possible after birth before 4 weeks
    b. At 4 weeks of age
    c. At 6 weeks of age
    d. When the child is found HIV-infected
3. For how long should the woman give NVP to her infant?
    a. For life, or until the child is found HIV-uninfected
    b. For 6 weeks
    c. Until the child is 6 weeks
    d. For the complete duration that the child is breastfeeding
4. Which of the following is the most common side effect of NVP?
    a. Diarrhea
    b. Cough
    c. Rash
    d. Jaundice

REVIEW QUESTIONS

Case #3: A pregnant woman has been diagnosed with HIV and has been started on regimen 5A.

1. Which of the following describes how often the woman will have to take the regimen?
    a. Once a day in the morning
    b. Once a day in the evening
    c. Twice a day, once in the morning and once in the evening
    d. Three times a day
2. Does the regimen need a starter pack?
    a. Yes
    b. No

(Qs 4-5) For the following multiple choice questions, choose the best answer to each question.

4. Which of the following best describes why a person would be given an alternative first line regimen?
    a. It is the first time they are starting ART
    b. They are experiencing serious side effects from their first line ART
    c. They have changed weight drastically
    d. They have developed resistance to a first line mediation

5. Which of the following best describes why a person would be given a second line regimen?
    a. It is the first time they are starting ART
    b. They are experiencing serious side effects from their first line ART
    c. They have changed weight drastically
    d. They have developed resistance to a first line mediation

(Q7) For the following short answer question, use the lines below to completely answer the question.

6. Determine whether the following HIV-infected patients are eligible for ART and state why.

    a. Pregnant woman, CD4 count 300, WHO stage 3 YES NO Why: _____
    b. 10 year old boy, CD4 count 750, WHO stage 2 YES NO Why: _____
    c. 12 month infant, CD4 count unknown, WHO stage 4 YES NO Why: _____
    d. Breastfeeding woman, CD4 count 1200, WHO stage 1 YES NO Why: _____
    e. 4 year old, CD4 count 900, WHO stage 2 YES NO Why: _____

7 ENCOURAGING AND MONITORING ADHERENCE TO HIV TREATMENT

OBJECTIVES

By the end of Unit 7, you should be able to:

- Explain what adherence is and the consequences of not having good adherence
- Counsel patients on ART adherence
- Help your patients plan for good adherence
- Understand the challenges your patients may face to good adherence and what you can do to help
- Explain your role in assisting with viral load and its importance for monitoring adherence

VOCABULARY

HIV TREATMENT ADHERENCE	Taking the right medication, in the right way, at the right time, every day
RESISTANCE	What happens when HIV is no longer successfully suppressed by a patient's current regimen of ART (associated with poor adherence)
RETENTION	Patients staying active in HIV/ART care clinic and successfully accessing all HIV services available to them, including PMTCT services
TREATMENT FAILURE	When a patient's current ART regimen no longer works to suppress their HIV virus
VIRAL LOAD	A blood test used to measure of the amount of HIV in the body

ART ADHERENCE

When your patient begins ART, it is important to encourage them to take their medications properly. In order for ART medication to work it must be taken *exactly* as prescribed by the clinician.

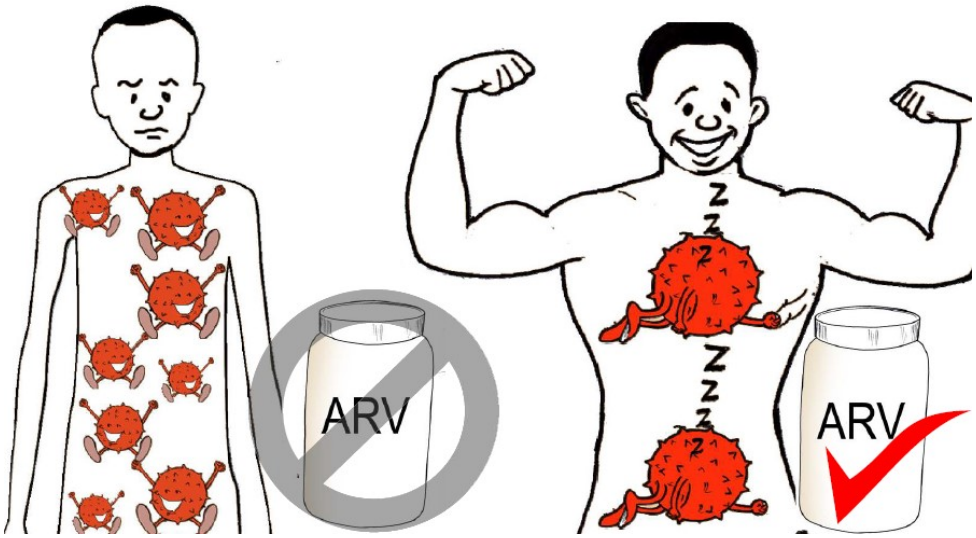
HIV TREATMENT ADHERENCE:
ART adherence is taking the right medication, in the right way, at the right time, every day.

Perfect adherence should be the goal for all patients!

IMPORTANCE OF ART ADHERENCE

ART is not a cure, but can it keep HIV under control. ART is a medication regimen which is only effective if it is taken appropriately. To stay healthy, patients must take their ART the right way, at the right time, every day.

When ART is taken properly, it causes the HIV virus to "sleep." When the virus is sleeping, it cannot multiply, allowing CD4 cells to increase. A high CD4 count keeps the immune system stay strong and the body healthy.



BAD ADHERENCE **GOOD ADHERENCE**

When adherence is poor and patients do **not** take their ART properly, resistance can occur. Resistance occurs when the HIV virus changes so that the ART is no longer able to suppress it. The virus can then "awaken" to multiply and destroy the CD4 cells. As the CD4 count decreases, the body becomes weak and infections can easily occur. When this happens, it is called treatment failure.

If there is treatment failure with the first line ART regimen, the clinician may change the patient to a different medication (second line ART). If there is treatment failure with second line ART, there are currently no other ART options in Malawi.

HIV TREATMENT ADHERENCE

HIV treatment adherence involves more than just taking ART. In order for HIV treatment to be effective, patients must follow ***all*** the instructions given to them by their clinician including taking their other medications (CPT, NVP, IPT), living healthily, and going to their scheduled appointments. The table below outlines what HIV treatment adherence is and what is not.

HIV TREATMENT ADHERENCE	HIV TREATMENT NON-ADHERENCE
♦ Taking ART correctly, as prescribed, even if the person feels healthy ♦ Taking ART for life ♦ Taking other medications as prescribed ♦ Giving medications, such as CPT and NVP, to HIV-exposed and infected babies and children as prescribed ♦ Not taking any breaks in treatment ♦ Attending regular appointments at the ART clinic ♦ Seeking help if having difficulties with side effects or adherence ♦ Practicing safe and healthy behavior (practicing safe sex, delivering at a hospital, etc.)	♦ Missing one or many appointments at the health facility or pharmacy– for the mother or child ♦ Not following their HIV treatment plan ♦ Not communicating difficulties in following the treatment plan to health workers ♦ Missing one or more does of medicine, or not giving the baby dose on time ♦ Sharing medicines with other people ♦ Stopping medicine for a day or many days ♦ Taking or giving medicines at different times than recommended by the health worker ♦ Taking or giving medicines without following instructions about food or diet ♦ Not minimizing risk-taking behavior (practicing safe sex, delivering at a hospital, etc.)

TAKING CARE OF MEDICATIONS

It is also important that ART medications are stored properly. Help your patients take care of their medication by advising them to:

- Keep them away from children
- Keep them out of sunlight and heat
- Keep them dry
- Keep them all in one place
- Make sure bottle is closed tightly

ADHERENCE QUICK FACTS

- The goal for all patients is 100% adherence!
- ART is not a cure. Instead, it suppresses the virus so that it cannot multiply and destroy the immune system (CD4 cells).
- When adherence is poor, the virus can become resistant to ART and treatment failure can occur.
- Missing more than one dose in a month is enough to create resistance.
- If a person develops a resistant virus, they can pass that resistant virus on to their partner or baby.
- Adherence must be greater than 95% to prevent resistance.

PLANNING FOR GOOD ADHERENCE

It is important to help your patients plan for good adherence ***before*** they begin taking ART, as well as help them maintain good adherence throughout their life.

Understanding how HIV works in the body, the role of ART in controlling the virus, and how ART helps the immune system stay strong are key to understanding the importance of adherence. Good adherence is what will keep the virus "sleeping" for a long time and keep the patient healthy.

Before the patient begins ART, he or she should be counseled with their caregiver or family, if possible, on adherence issues.

ART Adherence Counseling Topics:

- Confirm that the patient and family understand what ART is and how it keeps the body healthy.
- Explain the importance of a support system. Confirm that the child has a second caregiver.
- Explain that ART is not a cure for HIV and needs to be taken daily to keep HIV suppressed. This will require the patient to be committed to on-going care.
- Question the patient to confirm that the health facility where they will be receiving their ART medication and care is the most convenient place for them to receive care.
- Explain to the patient that ART needs to be taken every day for life, even if they no longer have symptoms and/or feel better.
- Help the patient understand what resistance is, and how good adherence can prevent resistance.

Help your patients make a plan for taking their ART and not missing any doses. This can be done by incorporating it into their daily schedule. Each family will be different, so they must look at their own daily routine to find the method that works best for them.

ACHIEVING GOOD ADHERENCE – QUICK TIPS

- Take medication before washing the face or after the evening meal
- Ask family or friends to remind them
- Set a daily alarm on their cell phone
- Keep a drug diary and mark every tablet taken
- Use a calendar and mark every tablet taken
- Use sunrise and sunset times as the reminder
- Have family members take their ART together at the same time
- Have a secondary caregiver for all children who also knows how to properly administer their medication
- For children, even if they are older, caregivers should supervise them taking their medication

CHALLENGES WITH ADHERENCE

Taking medication every day can be a big challenge. These challenges could arise from problems within the health facility or from the patient's situation at home. No matter the complication, it is important that a HTA understand any possible challenges a patient may face so that they can be prepared to help. Remember, it is the role of the HTA to counsel patients and help them overcome their challenges.

Below are some common challenges your patients may face. It is important that you are aware of them so you can be prepared to better help your patients!

CHALLENGES WITHIN THE HEALTH SYSTEM

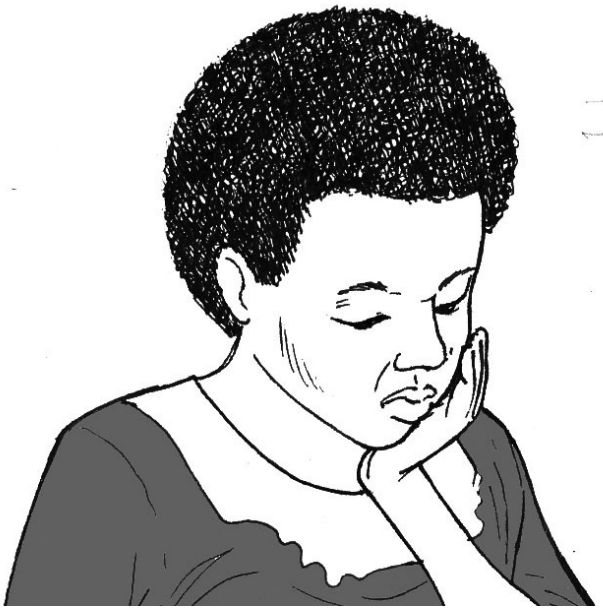
- Waiting times
- Clinic is too far away
- Transport to clinic is too expensive
- Medication is out of stock at the pharmacy
- Lack of experience at health facility
- Staff is poorly trained
- Negative experience with clinical staff
- Difficult for clinical staff to follow-up and find defaulters

CHALLENGES WITH THE MEDICATION

- Medication has a bad taste
- Regimen is confusing
- Too many pills to take
- Difficult to swallow
- Unpleasant side effects
- Forgetfulness
- Other traditional medications available that "cure"

GENERAL CHALLENGES

- Stigma and discrimination
- Poor support network
- Disclosure issues
- Financial insecurity
- Religious reasons
- Holidays
- Physical health
- Depression



CHALLENGES WITH ADHERENCE

Children often have a more difficult time adhering to their medication for many reasons. One of the biggest reasons is that they must rely on a caregiver to give them their medication or supervise them taking it. Therefore, it is important to take into account the factors listed below to understand the reasons a child may have poor adherence.

CHILD'S LIFESTYLE

- Fitting ART around school schedule and friends
- Boarding school
- Unstable home life
- Frequent movement of child between different households and caregivers
- Holidays
- Extended family visits

CHILD'S LACK OF UNDERSTANDING

- Have little knowledge about HIV and ART
- Have a negative attitude toward HIV and ART
- Do not understand why they need daily medicine
- Do not understand why they have to take medication if they do not feel sick
- Do not know their own HIV status or why they are taking medication

CHILD'S LACK OF SUPPORT

- Poor support network
- Family members unaware of status
- Stigma and discrimination
- Depression
- Unstable or no caregiver
- Parents do not adhere to their ART

ISSUES WITH CAREGIVER

It is important to remember the role caregivers have in the adherence of their children. Keep in mind the following issues caregivers may have with their child's adherence.

- Caregiver has had a negative experience with ART
- Caregiver does not understand HIV and/or ART
- Caregiver is sick or unable to administer ART
- Caregiver has poor adherence
- Caregiver perceives child's illness as not being serious
- Caregiver is coping with both his or her own status and the status of the child
- Caregiver is afraid of the child's reaction if the child's status is disclosed to him/her
- Caregiver has a poor support network

HTAs can help improve a child's situation by counseling the child's caregivers and encouraging them to have good adherence to their own medication. If they have good adherence, it may be easier for them to support the child's good adherence!

MONITORING TREATMENT

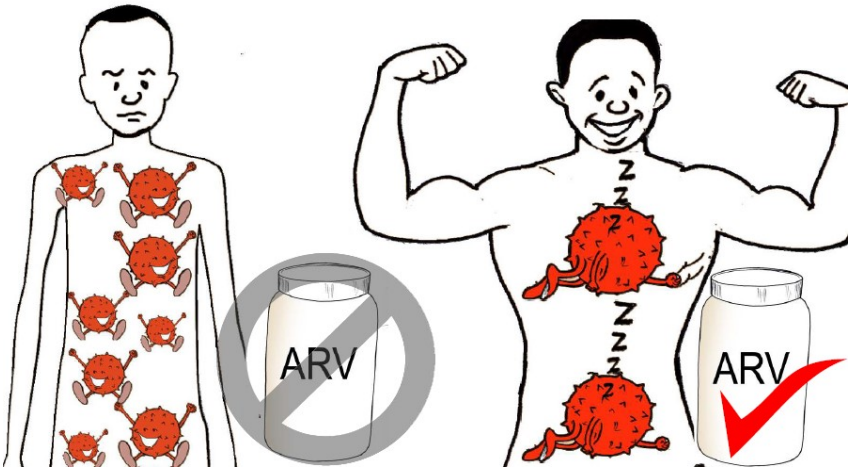
One way for a clinician or nurse to measure a person's adherence or treatment progress is to take a viral load.

VIRAL LOAD

Viral load (VL) is the best measure to assess the level of progression of HIV infection. It directly measures the amount of HIV virus in the blood. A low viral load (less than 400) means that the virus is suppressed and not multiplying in the body. This is the effect that is desired when taking ART.

As an HTA it is part of your responsibility to assist the clinician/nurse with viral loads by:

- Collecting samples
- Following up results and ensuring their return
- Complying with routine quality assurance measures
- Ensuring all materials are in stock



BAD ADHERENCE
HIGH VIRAL LOAD

GOOD ADHERENCE
LOW VIRAL LOAD

RETENTION

Retention means that patients are accessing all HIV/ART services, including PPTCT services.

For pregnant and breastfeeding women, this means that they are enrolled in a PPTCT program throughout pregnancy and breastfeeding and taking ART for life. For exposed infants, this means being enrolled in exposed infant care until their final HIV status is confirmed. For all HIV-infected children this includes enrolling into HIV care services and starting ART as soon as possible.

Monitoring your patients HIV treatment and adherence and helping them with any challenges they are facing can help them stay in care. The goal for all patients is to stay in care so they are able to access all services available to them and lead the healthiest life possible.

Do not judge your patients.

It is difficult to practice perfect adherence and there are many different barriers people face with retention in care.

We must be understanding of our patients and help support their adherence to treatment.

SUMMARY

KEY POINTS

- All patients should have a goal of 100% adherence to their ART. If they are not adherent, the HIV virus can become resistant and the patient could experience treatment failure.
- It is important that a counselor properly counsels patients before they begin ART to confirm they understand their medication, how to store it, and how to stay adherent.
- There are a number of challenges people face with adherence including: challenges with the health facility, the medication, and other general issues. HTAs should work with their patients to help them find solutions to these problems.
- Children often have more trouble adhering to their medication than adults. It is important to remember to work both with the child and their caregivers on proper adherence.
- One of the roles of an HTA is to assist with collecting high quality viral load samples and returning their results in a timely manner.
- Retention in care is making sure that all HIV-infected and exposed patients stay in care and access all HIV and PMTCT services available.

REVIEW QUESTIONS

(Cases 1-4) For the following case study questions, read the case carefully and answer each of the questions with the best answer.

Case #1: You are following up a patient at ART clinic and find out that she has missed doses because she has been travelling.

1. Which of the following is the first step caring for a patient with poor adherence?
    a. Yelling at her for not being adherent
    b. Counselling her about the importance of adherence
    c. Refer her to the clinic for a second line ART program
2. Which of the following conditions is the patient at greatest risk for if she continues this behaviour?
    a. Resistance to her ART
    b. Switching to a third line ART regimen
    c. Increasing her CD4 count
3. Which of the following is the best description of what is happening in her body?
    a. ART is doing its job and the HIV is sleeping
    b. ART is not doing its job and HIV is awake
    c. ART is doing its job and the HIV is awake
    d. ART is not doing its job and the HIV is sleeping

Case #2: A healthy, pregnant woman has just started ART. She believes that because she is healthy, she should not have to take ART. You try to counsel her.

1. Which of the following best describes the role of ART in the body?
    a. ART is a cure and kills all the HIV in the body
    b. ART is not a cure and only helps to supress the virus
    c. ART is a cure and kills all the CD4 cells in the body
    d. ART is a cure and helps by protecting people from opportunistic infections
2. How many doses can a patient miss per month and still have perfect adherence?
    a. Four per month
    b. Three per month
    c. Two per month
    d. One per month
3. Why is adherence important?
    a. If adherence is poor HIV can become resistant to ART
    b. If adherence is poor your CD4 cells are able to increase
    c. If adherence is poor CD4 cells can fight the HIV easily
    d. Helps keep viral load high
4. Is the child at risk if the woman is not adherent to her ART?
    a. No, because there is no risk of mother-to-child transmission
    b. Yes, because if the mother develops resistance, she could pass the resistant virus
    c. No, because the child will have its own ART to protect him/herself
    d. Yes, because the infant will be born with no CD4 cells

REVIEW QUESTIONS

Case #4: A patient has been on first line ART for many years with good adherence. At today's visit, you took blood to assess the patient's viral load.

1. Which of the following does a viral load test monitor?
    a. The number of CD4 cells in the body
    b. The amount of HIV in the body
    c. The amount of HIV antibodies in the body
    d. The nutritional status
2. What is the desired viral load for this patient?
    a. A high viral load, meaning that here are many HIV in the body
    b. A high viral load, meaning that here are many CD4 in the body
    c. A viral low load, meaning that here are many HIV in the body
    d. A viral low load, meaning that here are many CD4 in the body

(Qs 5-7) For the following multiple choice questions, choose the best answer to each question.

5. Which of the following is the next step after a person fails their second line ART regimen?
    a. They will start a third line ART regimen
    b. They will start an alternative first line regimen
    c. There is no other ART regimen option for them in Malawi
    d. They will start a first line ART regimen
7. What does retention in care mean for a pregnant woman?
    a. Adhering to care and HIV treatment throughout pregnancy and breastfeeding, and continuing to take ART for life
    b. Adhering to care throughout pregnancy
    c. Adhering to care throughout pregnancy and breastfeeding
    d. Adhering to care and HIV treatment throughout pregnancy and breastfeeding

8 EXPOSED INFANT CARE AND SPECIAL ISSUES FOR CHILDREN

OBJECTIVES

By the end of Unit 8, you should be able to:

- Counsel patients concerning the importance and proper practice of exclusive breastfeeding and complementary feeding
- Describe the steps taken to confirm an exposed infant's HIV status
- Counsel patients on the importance of drug adherence for PMTCT
- Counsel patients on special issues which need to be considered for children starting HIV treatment

REDUCING RISK OF HIV TRANSMISSION

After a child is born to an HIV-infected mother, it is important that the parents follow the appropriate steps to decrease the chances of the exposed infant contracting HIV while keeping the infant as healthy as possible. This unit will summarize those steps which are done in order to accomplish the following goals:

- Establish final HIV status of infant
- Provide counseling regarding adherence to all medication (ART, NVP, CPT) for PMTCT
- Provide counseling on recommended infant feeding practices
- Health of mother and infant
- Reduce risk of HIV transmission

If all precautions are taken, the risk of transmission is decreased to less than 2%. If a mother-baby pair does **not** receive the proper care and treatment, the risk of transmission is 40%.

IMPORTANCE OF MOTHER'S HEALTH

For an infant to remain healthy, it is very important for the mother to remain healthy.

Transmission of HIV can occur during pregnancy, birth or breastfeeding. An infant is a part of the mother's body during pregnancy, drinks the mother's milk during breastfeeding and needs the mother to take care of him/her when s/he is born. For these reasons, it is important that the mother stay healthy for both her health and the health of her child.

There are many factors of a mother's health that can **increase** the chances of transmission including:

- Having a high viral load (a lot of the HIV virus in the body)
- Recent HIV infection either during pregnancy or breastfeeding (which causes a high viral load)
- Having advanced HIV or AIDS
- Having a low CD4 (immunity)
- Having poor nutrition
- Having other sexually transmitted infections (STIs)
- Poor adherence to ART
- Mixed breastfeeding
- Sores on either the mother's breasts or infant's mouth during breastfeeding

A family also has the ability to reduce the chances of passing the HIV virus to their child. Encourage the family to practice these steps to eliminate some risk factors and reduce transmission of HIV to the child.

- Encourage mother to start ART before pregnancy
- Support mother to maintain good adherence to ART and other medications
- Encourage active involvement and family support for the mother and child's care
- Use condoms to prevent against STIs and HIV infection
- Help mother to exclusively breastfeed for the first six months of the child's life
- Help mother to understand what a balanced, nutritious diet is
- Advise the mother to go to the clinic if she has cracked, sore or painful nipples or the baby has thrush (white sores) in his/her mouth

EXPOSED INFANT FEEDING

There is a 10-15% risk of HIV transmission through breastfeeding. Because the risk is high, it is often asked if an HIV-infected mother should breastfeed her child. There are both benefits and risks. Despite the fact that breast milk is a form of HIV transmission, the benefits of breastfeeding outweigh the risks and the MOH recommends all women, despite their HIV status, breastfeed their infants. This is especially true now that all HIV-infected pregnant and breastfeeding mothers should betaking ART which, when taken as prescribed, suppresses HIV and greatly reduces the chance of transmission.

BENEFITS

- Perfect nutrition for an infant
- Protects infant from many diseases
- Affordable
- Easily available
- Clean
- Accepted in the community
- Mother and child bonding

RISKS

- HIV virus is inside the mother's breast milk
- A breastfeeding infant can become HIV infected because he or she will be exposed to HIV the entire time he or she breastfeeds

MALAWI INFANT FEEDING RECOMMENDATIONS

- Start breastfeeding immediately after birth
- Give only breast milk up to age 6 months (replacement feeding is **not** recommended unless women are unable to breastfeed)
- Gradually start complementing breastfeeding with suitable hygienically prepared foods from age 6 months
- Stop breastfeeding around age 24 months
- Stop breastfeeding gradually over a period of 1 month (no rapid cessation)
- Practice optimal breastfeeding techniques:
    - Empty both breasts properly to avoid breast engorgement
    - Ensure proper attachment and position to minimize nipple cracks and fissures
    - Watch out for signs of breast infection and if seen, stop using that breast for feeding and seek treatment immediately

MoH Guidelines: Clinical Management of HIV in Children and Adults, First Edition, July 2011, Ministry of Health, Malawi

TIPS FOR EXCLUSIVE BREASTFEEDING

- Make sure the family is not giving the infant any other food or liquids besides breast milk, not even water. The infant can take prescribed medicine.
- A breastfeeding mother should ensure that her baby is always well positioned with the baby close to her, facing the breast, with his or her neck and body straight and supported.
- A breastfeeding mother will know that her baby is attached to the breast properly if a large amount of the areola is inside the mouth.
- The baby should feed frequently during the day and night, as often and as long as the baby wants, at least 8 times in 24 hours.
- The baby should finish one breast and detach on his or her own before the mother offers the other breast. This will ensure that he baby gets as much breast milk as possible to satisfy him or her.
- The mother should check for sores in the baby's mouth everyday and get him/her treated as soon as possible if they are present.
- Let the mother know that if her baby is not feeding well or if she is having difficulties with breastfeeding, sore nipples, or red and painful breasts, she should go to the health facility right away for evaluation.

PMTCT TESTING SUMMARY

All exposed children must go through a series of tests to correctly diagnose if the child is HIV-infected or not. The following flow charts in *Unit 5: HIV Diagnosis* help you decide the steps you need to take to make sure the true status of all exposed infants is confirmed by the time they are two years old.

Any woman who is **not** HIV-infected should be tested multiple times throughout pregnancy and breast-feeding to confirm that she has not contracted HIV during that time. When a person is recently infected their viral load is very high which increases the risk of transmission. The mother knowing her status will ensure she can enroll into ART care as soon as possible after infection, thus reducing the chance of transmission to her child.

As and HTA you can assist with screening at ANC and maternity to ensure all women are tested.

IMPORTANCE OF ADHERENCE FOR PMTCT

For both the mother and child, adherence to medication is an important part of PMTCT and staying healthy if found HIV-infected. Confirm that your patients are taking the right drug, the right way, at the right time, every day. Perfect adherence should be the goal for all patients.

The mother should be enrolled into ART care as soon as possible after discovering she is pregnant and HIV-infected. She will be asked to start Regimen 5A unless already enrolled into care. Encourage the mother to be one hundred percent adherent throughout pregnancy, childbirth and breastfeeding to reduce the risk of transmission to the baby as much as possible.

In addition, it is important for the mother to remain adherent to cotrimoxazole preventive therapy (CPT) and any other medication she is taking. These medications will help her stay as healthy as possible to best care for her child.

Drug adherence for the child is just as important. Confirm that at least two caregivers know how to administer the child's medications properly. Also make sure the child is taken for routine care and testing as suggested in the flow chart below.

The mother should be given NVP and taught how to give it to her child at antenatal clinic. CPT should then be given the first time during the child's 6-week appointment and refilled during the mother's regular ART clinic appointments.

SPECIAL ISSUES FOR CHILDREN

Children and teenagers when starting ART have special issues which need to be considered. As an HTA it is important that you understand these issues so you can properly counsel your patients.

Importance of Two Caregivers

- A child should have caregivers that know they are living with HIV because they are not yet mature enough to take ART by themselves.
- Caregivers are busy and are not always available. It is recommended that all children have at least two caregivers who know how to give them their medication.
- Adolescents and teenagers also should have two caregivers.

Responsibilities of a Caregiver

A caregiver of a child living with HIV has many responsibilities. It is important to counsel patients and help them choose reliable caregivers that live with or very close to the child, so that s/he is easily available to help. Caregivers should:

- KNOW: the names of the child's medication and the dosage
- WATCH: the child take their medication and for side effects
- SUPPORT: the child, attend all ART appointments and talk to their child about HIV and their treatment

Dosing and Medication

Children's HIV treatment can differ from an adult's treatment. It is important to ensure caregivers understand the differences between their child's treatment program and their own. Highlight the following points when counselling :

- A child's ART regimen may be different than an adult regimen
- Most child regimens are taken twice per day (example: 2P regimen)
- The amount of pills (dosage) the child takes depends on their weight, so it is important that the child is weighed at every clinic visit
- Ensure caregivers understand dosage and medication instructions before they leave the clinic, encourage them to ask if they are not sure

Challenges Faced by Children

Children often face unique and difficult issues living with HIV. Talk to caregivers and let them know that their child may face bullying, fear of disclosure, difficulty taking their medications (especially at boarding schools, questioning why they are different from their peers, feeling like they do not need help from their caregivers to take medication and other challenges. Caregivers can help their child through these issues by offering support and encouragement, as well as talking to them about the reasons why taking their treatment is so important.

Talking to Your Child about HIV

It can be very difficult for caregivers to talk to their children about HIV. As an HTA and counselor, it is one of your roles to assist in disclosing. Remind caregivers that you are there to help them talk to their children and they can ask you for help. You can give them tips on how to talk to their children at home and encourage caregivers not to lie to their children!

SUMMARY

KEY POINTS

- In order to prevent mother-to-child transmission (PMTCT) of HIV, counselors should discuss with their patients the importance of the mother's health, correct infant feeding, infant and mother testing and drug adherence.
- It is important that the mother stay healthy during pregnancy and breastfeeding by adhering to her medication, eating healthy foods, using condoms to prevent STIs, practicing proper infant feeding techniques, and having a supportive partner.
- A mother should practice exclusive breastfeeding for the first six months of a child's life, then introduce complementary feeding at six months by giving small bits of other food to the child. Before the child is two years old, he or she should be weaned slowly over a month's time, then stop breastfeeding.
- An exposed infant should have a DNA PCR test at six weeks of age. If positive, the child should have a confirmatory DNA PCR test. If negative the child should have confirmatory tests at 12 and 24 months. If any of the child's tests are positive, he or she should start ART immediately.
- HTAs can assist with screening in ANC and maternity to ensure all mothers know their HIV status.
- Counselors should encourage mother and child to remain adherent to all of their medications.
- HTAs should be aware of the special issues children and their caregivers face when starting HIV treatment. Counsel patients on the importance of two caregivers, caregivers' responsibilities, the differences in dosing and medication, challenges their child may face and how to talk their child.

REVIEW QUESTIONS

(Cases 1-2) For the following case study questions, read the case carefully and answer each of the questions with the best answer.

Case #1: You are chatting with a young mother. Her grandmother has been giving her different advice about breastfeeding than the information she received in clinic. She asks some questions to clarify.

1. What is the best definition for exclusive breastfeeding?
    a. Giving only breast milk to a child until they are 6 months old
    b. Giving an infant formula instead of breast milk
    c. Giving other food and liquid along with breast milk beginning when the child is 6 months old
    d. Giving other food and liquid along with breast milk beginning when the child is less than months old

Case #2: A mother has come for her infant's 6 month check-up. The infant's DNA PCR test results are negative. The clinician has prescribed CPT for the child.

1. What is the HIV status of the child?
    a. HIV-infected
    b. HIV-uninfected
    c. Exposed
    d. Unknown
2. What is another name for CPT?
    a. ART
    b. IPT
    c. Bactrim
    d. ARV
3. Which of the following is the best reason for the clinician's prescription?
    a. Helps prevent the child from becoming infected with HIV
    b. Protects against diseases the immune system is too weak to fight
    c. Is a replacement for ART
    d. It is a vaccination

Case #3: A child has just been diagnosed with HIV. You are asked to counsel the parents about their roles as caregivers. They have many questions for you.

1. What is the purpose of having two caregivers for the child?
    a. A child does not need two caregivers
    b. There are two caregivers to take responsibility for the child taking his/her ART, even if the other caregiver is away
    c. There are two caregivers because the child has to take his/her medication twice a day
2. The mother is taking regimen 5A, she asks if it is appropriate to give my child some of my medication if I forget theirs?
    a. Yes, adult and child regimens are always exactly the same
    b. Yes, as long as you give your child their medication twice a day instead of once a day
    c. No, adult and child regimens and dosing may be different

REVIEW QUESTIONS

Case #4: A breastfeeding mother went to the clinic for her child's 5 month check-up. At that time she received a negative result for the child's DNA PCR test and some medication for the child to help with his cough. She has decided not to give her child the medicine because she is afraid to give the child anything but breastmilk for the first six months.

1. Should the child be taking medication?
    a. No, the mother should wait until the child is 6 months old then start introducing other foods
    b. Yes, if prescribed by the clinician, it is acceptable to take medication with breast milk
    c. Yes, but only when mixed with other food like phala
2. When should the child next be tested for HIV?
    a. At 6 months
    b. At 12 months
    c. At 24 months
    d. The child does not need to be tested again
3. Which kind of test will be done when the child has his next HIV test?
    a. DNA PCR test
    b. Rapid test
    c. Confirmatory DNA PCR test
    d. Confirmatory rapid test

(Q5-7) For the following short answer questions, use the lines below to completely answer the question.

6. Explain the benefits of HIV-infected women breastfeeding their children.

_____

_____

_____

7. List three ways a mother can remain healthy and reduce the risk of transmitting HIV to her child.

_____

_____

_____

8. Describe why it is important that all children have at least two caregivers.

_____

_____

_____

9 SEXUALLY TRANSMITTED INFECTIONS AND OTHER COMMON ILLNESSES ASSOCIATED WITH HIV

OBJECTIVES

By the end of Unit 9, you should be able to:

- Explain what an opportunistic infection (OI) is
- Refer patients that you suspect have an STI appropriately
- Educate patients and the community on prevention, transmission and risks of STIs
- State your role in testing for STIs
- List ways to prevent OIs
- Do a syphilis test for a patient
- Describe the risks and treatment process for syphilis

VOCABULARY

OPPORTUNISTIC INFECTION	Infection that occurs because of an already weakened immune system
SEXUALLY TRANSMITTED INFECTION	Viral or bacterial infection transmitted through anal, oral, or vaginal sex, STIs include: HIV, syphilis, herpes, gonorrhea, chlamydia, human papilloma virus (HPV)

OPPORTUNISTIC INFECTIONS

Infection can occur in anyone, healthy or sick. When people with HIV progress to AIDS their immune system is in a weakened state. Persons with weakened immune systems are more likely to get infections than people with healthy immune systems. Some of these illnesses can also occur in persons who do not have HIV, but oftentimes the illness is more severe in those with HIV.

OPPORTUNISTIC INFECTION:
Infection that occurs because of an already weakened immune system

There are many different opportunistic infections (OIs) that can affect an HIV-infected individual including:

- Sexually Transmitted Diseases (STIs): syphilis, herpes, gonorrhea, chlamydia, human papilloma virus, HIV/AIDS
- Tuberculosis
- Pneumonia
- Kaposi sarcoma
- Wasting syndrome
- Cancer
- Candidiasis (oral thrush)
- Hepatitis B or C
- Meningitis
- Bacterial infections
- Gingivitis or periodontitis

SYPHILIS

One role of HTAs is to test patients for syphilis. It is important to diagnosis syphilis as early as possible in all patients. Syphilis can have serious long-term complications if it is not treated, but if diagnosed early, it can be cured with a simple treatment. Pregnant women can transmit syphilis to their unborn children which can cause severe birth defects or still births. That is why it is especially important to test women at antenatal clinic.

You can assist your patients by:

- Screening and testing all antenatal mothers for syphilis for early detection and treatment
- Educate patients about safe sex practices, including wearing condoms
- Encourage male and/or partner involvement, so that partners of infected patients can also be screened for syphilis as well

SEXUALLY TRANSMITTED INFECTIONS

STI QUICK FACTS

- An STI is a type of either bacterial or viral infection spread through oral, vaginal or anal sex
- HIV is a type of STI along with: syphilis, herpes, gonorrhea, chlamydia and HPV
- Use a condom **every** time during sex to prevent transmission of STIs
- An HIV-infected person has a higher chance of contracting and transmitting HIV and other STIs
- Counsel partners to be tested and treated **together** for STIs to prevent re-infection from partner to partner

Sexually transmitted infections (STIs) are caused by viruses or bacteria that are transmitted from one person to another through sex. A person can get an STI through any type of sex, including anal and oral. For some STIs, penetration does not need to occur for transmission to happen. Even rubbing an infected penis or vagina on the other person's genitals or other part of the body can lead to transmission.

STI viruses and bacteria live in moist places, such as the vagina, penis, mouth and throat. That is why it is important to use a condom during sex at all times.

STIs are particularly dangerous for pregnant women because they can cause complications during pregnancy and birth. In addition, it is possible to pass some STIs from mother to child during pregnancy and childbirth.

HIV-infected patients have a higher risk of both getting and transmitting STIs, including HIV, to others during sexual contact. Additionally, if an HIV-uninfected person with an STI has sex with someone who is HIV-infected, it is more likely for the uninfected person to contract HIV. If you suspect that an HIV-infected patient has an STI, refer them for early diagnosis and treatment.

People can be very private about STI symptoms because they feel uncomfortable talking about their private areas. Because the signs, like a rash, only affect the private areas, it can be very difficult for you to notice them. Therefore, try to find a comfortable way for both you and your patient to discuss STIs.

As an HTA, you can ask your patients the following questions to determine if they might have an STI:

- Have you experienced any symptoms of STIs such as: discharge, vaginal itching, pain during sex, sores in the genital area and/or pain during urination?
- When was the last time you were tested for an STI?
- Have you seen any signs that your partner has an STI such as: sores in the genital area or pain during sex?

An HTA should be familiar with the symptoms of STIs and refer those with symptoms to go to the health facility for testing and treatment. It is **not** an HTA's role to diagnose the patient. Help educate your patients and the community on STI prevention, transmission and risks. Do not be judgmental and encourage your patients to openly share their issues so that you can help them receive the care and support they need.

COMPLICATIONS OF STIs

STIs, if not treated properly , can cause serious complications such as:

- Infertility in both women and men
- Babies born too early, too small, blind, sick or dead
- Pregnancy outside the uterus (womb)
- Death from severe infection
- Lasting pain in the lower abdomen
- Cancer of the cervix

If a patient is experiencing any of the following signs or symptoms they should be referred to a health facility for testing and treatment immediately to avoid further complications.

STIs: SIGNS AND SYMPTOMS

Discharge from Penis

Vaginal Itching

Pain during Sex

Burning during Urination

Sore on Penis or Vagina

Abdominal Pain

TREATMENT OF STIs

At the health facility, a patient can be tested for STIs. If he or she tests positive for an STI, the clinician can then prescribe the appropriate treatment.

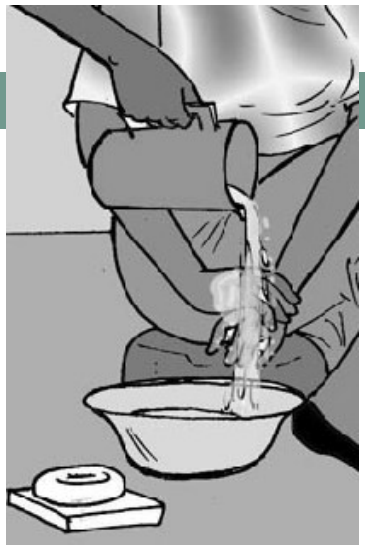
One of your roles as an HTA may be to offer and perform syphilis testing. It is important to practice confidentiality with these patient's issues and treat them with respect.

If a person has an STI, it is likely their partner does too. If only one of them gets treatment, they can be re-infected by their partner. Therefore it is very important for sexual partners who have an STI to get treatment at the **same time** so that they do not continue to pass the infection back and forth to one another.

PREVENTING OIs

One of the goals of treating HIV/AIDS is to prevent OIs before they occur. These methods are important for all people to practice, including those who are HIV-infected.

HAND WASHING



- Wash both hands with soap and warm water after using the toilet, changing the baby's nappy, before eating, before cooking, and after contact with sick people
- If soap is unavailable, use ashes or soil and rinse the hands together thoroughly

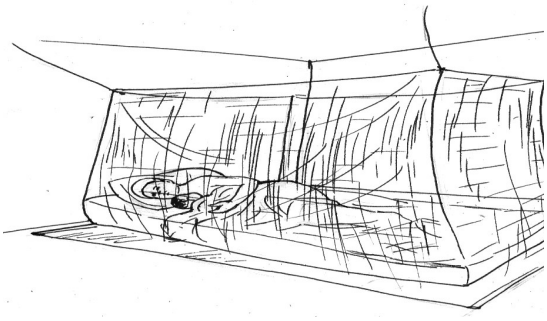
CLEAN WATER

- Obtain water from the cleanest source available and treat if with WaterGuard if necessary
- Keep animals away from protected water sources
- Collect and store water in clean containers
- Empty and rinse out water containers before every use
- Keep water containers covered
- Remove water with a long handle dipper that is kept especially for the purpose of washing to avoid hands touching the water
- If possible, boil water (only to a rolling boil) for making food or drinks

PROPER FOOD PREPARATION

- Cook all meats thoroughly
- Wash fruits and vegetables with clean water before eating them

INSECTICIDE TREATED NETS (ITN)

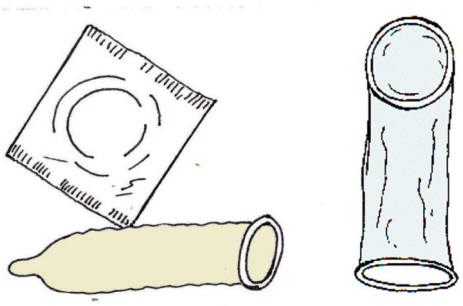


- Used to help prevent malaria
- Sleep under an ITN every night
- Get a new ITN every two years

PREVENTING OIs

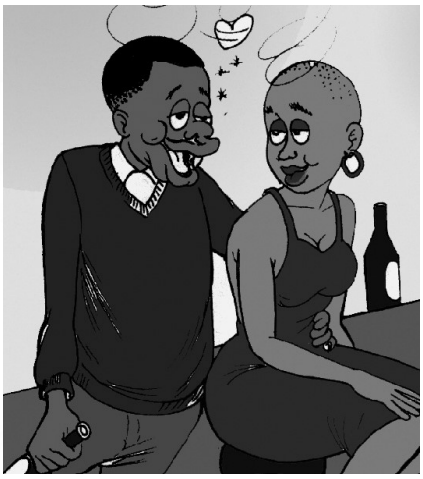
CONDOM USAGE

- Use a male or female condom every time when having sex
- Have an extra supply of condoms at all times
- Make sure that condoms are kept in a safe place away from intense heat and any expired condoms are thrown out
- After sex, dispose of condoms properly



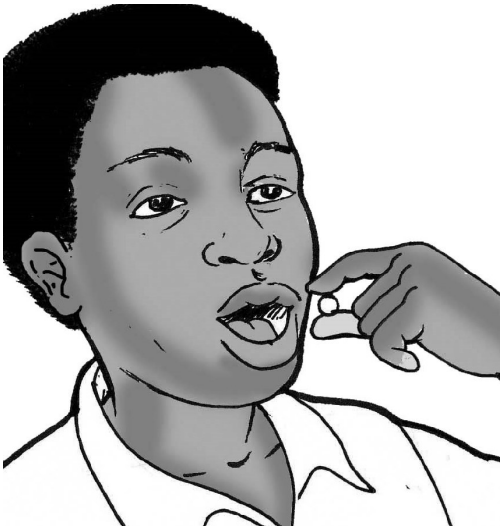
OVERALL HEALTHY LIVING

- Eat a variety of healthy foods every day
- Avoid drinking excessive amounts of alcohol
- Do not smoke



ADHERE TO MEDICATION

- Start ART immediately after meeting eligibility requirements
- Adhere to ART
- Take cotrimoxazole preventative treatment (CPT) for life, regardless of other medications taken
- If eligible, take isoniazid preventative treatment (IPT) to prevent tuberculosis
- Take all medication for any infections as prescribed



SUMMARY

KEY POINTS

- An opportunistic infection is one that occurs because of an already weakened immune system, like in a person living with HIV.
- You should ask your patients about any signs or symptoms of STIs they have at every visit. If you suspect your patient to have an STI, refer the patient and their partner to the health facility together for testing and treatment immediately.
- Counsel patients on:
  - Preventing STIs through condom usage
  - Different methods that STIs are transmitted
  - The serious risks of STIs if they are not treated quickly and appropriately
- Understand your role in performing syphilis testing for patients with a STI.
- In order to prevent OIs, HTAs should encourage their patients to: hand wash, use clean water, prepare food properly, sleep under an ITN every night, use condoms during sex, avoid bad habits like drinking and smoking and adhere to all their medications.

REVIEW QUESTIONS

(Cases 1-2) For the following case study questions, read the case carefully and answer each of the questions with the best answer.

Case #1: You are doing an HIV test for a pregnant woman. She tells you she is experiencing some abdominal pain and some itching in her vaginal area.

1. Which of the following is the most likely cause of this woman's discomfort?
    a. Side effects from her medication
    b. STI
    c. Tuberculosis
2. Which is the first step you should take?
    a. Ask her about her other symptoms to try to diagnose her
    b. Counsel her on good hygiene
    c. Refer her to the clinic for testing and treatment
    d. Refer her and her partner to the clinic for testing and treatment

Case #2: During a counselling session, a woman was telling you she was experiencing some abdominal pain. You want to find out if she has an STI.

1. Which of the following is the meaning of STI?
    a. Sexually Transmitted Immunodeficiency
    b. Sexually Transmitted Infection
    c. Symptoms Transmitted by Intercourse
2. Which of the following is <u>not</u> an appropriate question to ask the woman to find out if she has an STI?
    a. Have you experienced any symptoms of an STI?
    b. When was the last time you were treated for an STI?
    c. Have you seen any signs that your partner has an STI?
    d. Have you been unfaithful to your spouse?
3. If you suspect the woman does have an STI, what is the appropriate next step?
    a. Ask her about her other symptoms to try to diagnose her
    b. Counsel her on good hygiene
    c. Refer her to the clinic for testing and treatment
    d. Refer her and her partner to the clinic for testing and treatment
4. Which of the following is the best way to prevent an STI in the future?
    a. Wear a condom during all types of sex
    b. Sleep under an insecticide treated net
    c. Wash her hands after using the bathroom

(Q3) For the following multiple choice question, choose the best answer.

3. Which is the best definition for an OI?
    a. Infections that occur in HIV-infected people
    b. Infections that occur in people with AIDS
    c. Infections that occur because of an already weakened immune system

(Q4) For the following short answer question, use the lines below to completely answer the question.

4. List five methods of preventing opportunistic infections.

_____

_____

_____

10 MONITORING AND EVALUATION LINKAGE TO CARE

OBJECTIVES

By the end of Unit 10- Linkage to Care, you should be able to:

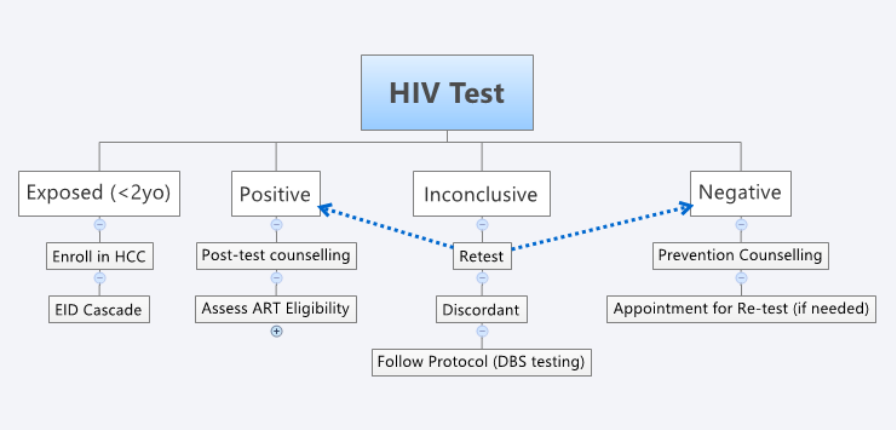
- Define linkage to care
- Describe why linking patients to care is an important part in providing comprehensive HIV services
- State the MOH's goals for linkage to care in Malawi
- Describe the gaps in linkage to care in your facility and give suggestions to fill them
- Fill the Linkage to Care register and monthly reporting tool
- Understand your role as an HTA in providing linkage to care to children

Linkage to Care

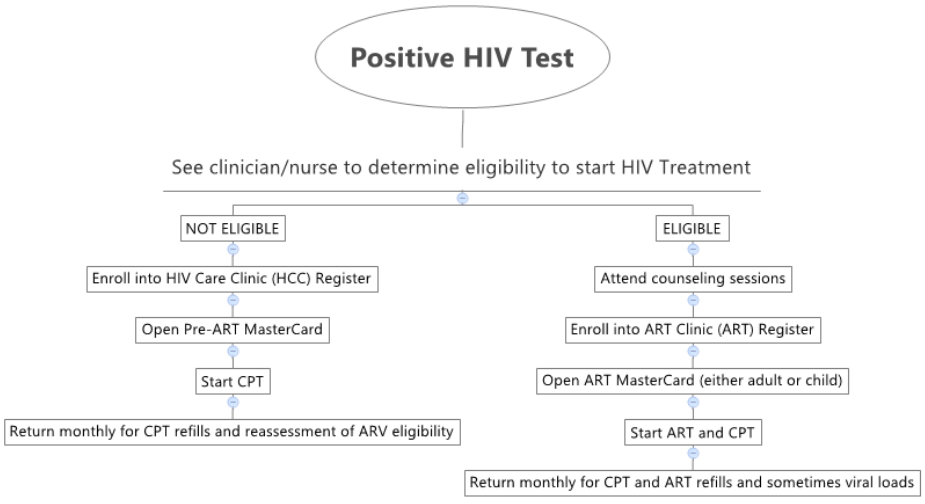
Connecting HIV-infected individuals to HIV care and treatment services for the first time

What steps does a person take to be linked to care?

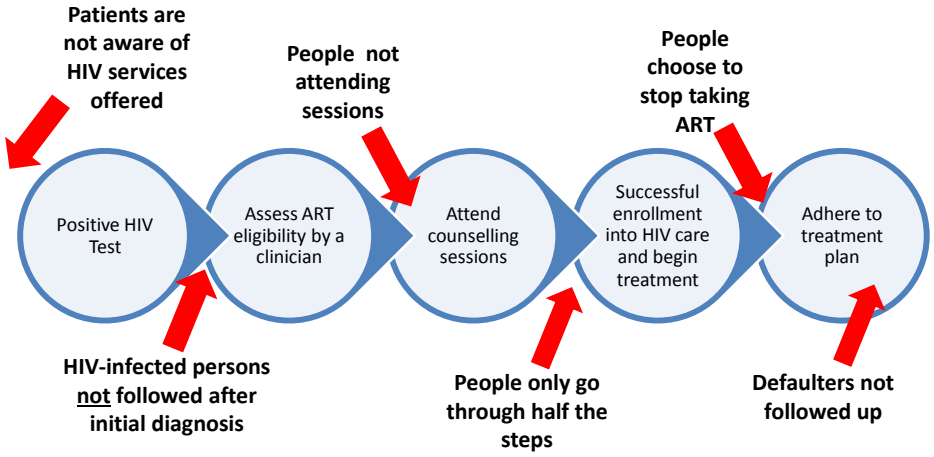
1. Identify persons and provide an HIV test



2. Enroll patient into HIV treatment clinic



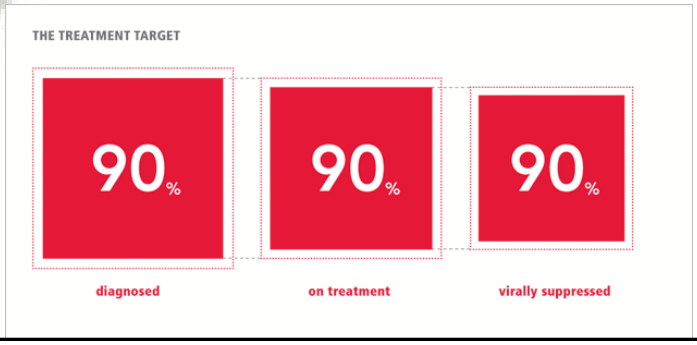
How does a person found HIV-infected access HIV services?



There are GAPS in the treatment cascade

Linkage to Care Goals

New country goals want us to ***DOUBLE*** the number of children on ART – to do this we must make **ABSOLUTELY SURE** that all children identified at the facility enroll into care!



What can you do as an HTA?

- Ensure all patients that you test understand what HIV services are available to them at the facility and how to access them
- Refer all your patients for HIV services (provide escort or specific instructions, if possible)
- Have a good relationship with personnel from the HIV/ART department, so referrals and follow up can be easily tracked
- Work with your facility to ensure all patients are being referred properly for HIV services
- Keep track of all your patients in the Linkage to Care Register and track referrals

Who will you target?

- HIV-infected children ***less than 15 years old***
  - NO exposed infants, NO adults
- You will register all children found in the facility
  - Those that you find and those that others identify
  - Include transfer-ins to the ART/HCC department

10 MONITORING AND EVALUATION LOGISTICS

OBJECTIVES

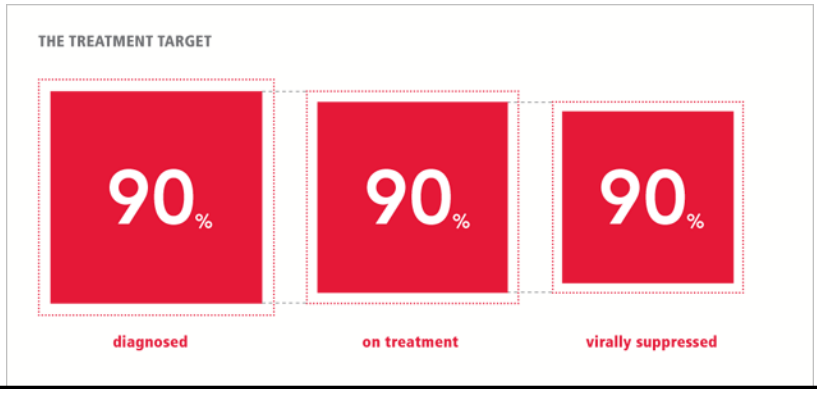
By the end of Unit 10- Logistics you should be able to:

- Define provider-initiated testing and counseling (PITC)
- Describe PITC goals in your facility
- Describe PITC challenges in your facility
- Assist M&E representatives to fill PITC Monthly Reports
- Fill HTA Monthly Testing Reports
- Explain the importance of M&E
- Understand when to fill reports, how to submit them and what support Tingathe will give you to fill them

GOALS

HTAs can assist you to accomplish both global and national goals in your facility:

1. Scaling up PITC
2. Increasing identification and linkage of HIV-infected children into care



What does PITC mean?

- Ascertain HIV status for all patients attending health services[1]
- Testing is a routine part of health care and should be provided to everyone unless they decline
  - Gain consent using **Opt Out** testing method
  - E.g. How HIV testing is currently offered at ANC

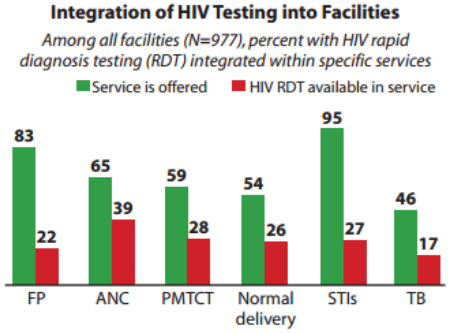
[1]*Malawi Integrated Guidelines, 2014 Clinical Management of HIV in Children and Adults.*

Why do we care about PITC?

The **BEST** way to get more people to know their status is by ***encouraging HIV testing*** for those already at the facility

Where are we now with PITC?

- Malawi has a prevalence of 10.6%; in the southern region it is 14.5%
- As of 2010, **72% of women** and **51% of men** aged 15-49 have ever been tested and received their results -*2010 Malawi Demographic Health Survey*



"Only a minority of health services nationwide have integrated HIV RDT. Failure to integrate HIV testing within services is a missed opportunity to offer HIV testing to clients."

-2013-14 Malawi Service Provision Assessment

PITC GOAL

100% testing offered to all patients who attend any of the following departments:

- ANC
- Maternity
- TB
- OTP
- NRU
- In-patient
- STI

We will begin our focus with these departments and layer in additional support and monitoring later…

Challenges to PITC

- Health facility staff have different understandings of what PITC is
- Lack of certified HTC counselors, especially at high volume sites
- Little monitoring or evaluation for PITC
- Supply shortages
- Quality assurance procedures not practiced and/or implemented
- HTC is not an integrated part of care in some departments

What can we do to overcome these challenges?

Different understandings of what PITC is

Baylor-Tingathe:

- Training of HTAs on HTC/PITC
- Meetings with DHMTs to have common understanding on PITC
- Support PITC meetings (on site and cluster)

HTAs:

- Share the definition of PITC with their colleagues
- Set an example by practicing PITC

Supervisors:

- Share the meaning and new goals of PITC at a morning meeting
- Work with different departments to ensure they have a plan of action for how PITC should be practiced

Lack of Certified Counselors

Baylor-Tingathe:

- Support the hiring and training of HTAs

HTAs:

- Help to fill gaps and provide testing and counseling

Supervisors:

- Take an active roll in training HTAs and providing them support
- Supervise HTAs work and ensure they are filling the gaps in care

Little Monitoring or Evaluation of PITC Practices

Baylor-Tingathe:

- PITC M&E tool to measure the amount of PITC happening in each priority department
- Collect data monthly and give feedback on goal progress
- Provide monthly mentorship by M&E rep to all health facility staff to fill department registers (focusing on priority departments)

HTAs:

- Assist M&E rep collect data and disseminate feedback

Supervisors:

- Ensure all departments are properly recording the HIV status of patients in department registers
- Make a plan for recording HIV status in in-patient/short stay registers if it is **not** currently being recorded
- Share feedback from PITC report and work

Supply Shortages

Baylor-Tingathe:

- Support MOH mentorship activities for report filling
- Review Distribution List with HTC Coordinators
- Support relocation of test kits from other HFs
- Communicate with MOH additional test kits need for new HTAs

HTAs:

- Properly fill daily activity registers

Supervisors:

- Review Distribution list and send feedback to MOH Logistics
- Relocate test kits
- Communicate with MOH about test kits need

Quality assurance procedures not fully practiced and/or implemented

Baylor-Tingathe:

- Support MOH in PT supervisions
- Support MOH in transporting QC and PT supplies from DHO to HFs
- Provide HTC related needs (SOPs, stopwatches etc.)
- Supporting HTC supportive supervisions (quarterly)
- DHPOs to conduct monthly supportive supervisions

HTAs:

- Conduct QC as per the MOH guideline
- Conduct PT every quarter
- Provide peer supervision
- Promote strict adherence to quality issues

Supervisors:

- Supportive supervisions to ensure QC/QA practices

HTC is not an integrated part of care in some departments

Baylor-Tingathe:

- Provide plan of action tool
- Provide on site PITC orientation

HTAs:

- Finalize work with in-charges and HTC focal persons
- Set PITC targets
- Place HTAs in PITC strategic departments

Supervisors:

- Work with different departments to ensure they have a plan of action for how PITC should be practiced

PITC Tool

- Used to measure the amount of PITC done in each department using the ***department registers***
- Data will be collected by M&E representative
- HTA can assist by:
  - Helping M&E reps collect data
  - Ensure that the HIV status is filled in all department registers

HTA Monthly Testing Report

- Will help us know how much testing you're doing in your facility
- Submit monthly

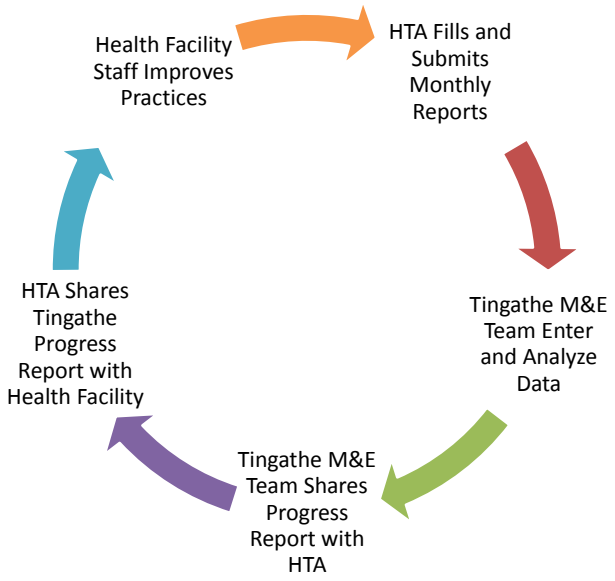
	HTA Name	Number of Confirmatory Rapid HIV Tests Done	Number of Rapid HIV Tests Done	Number of DNA PCR Confirmatory Tests Done	Number of DNA PCR Tests Done	Number of Viral Loads Done	Number of Syphilis Tests Done
1							
2							
3							

  - # confirmatory rapid tests
  - # rapid tests
  - # confirmatory DNA PCR
  - # DNA PCR
  - # viral load
  - # syphilis tests

Importance of M&E

- Need to ***MEASURE*** our progress and see the impact HTAs are having on your health facility.
- This information can help guide the program and *best practices* for PITC and linkage.
- By filling forms correctly HTAs will be able to show everyone that they are **successfully** filling gaps in the health facility and working with all team members to accomplish the facility's goals!

Sharing Data



- HTAs will submit reports monthly to Tingathe and MOH supervisor
- Progress reports from Tingathe will be shared with the HTA
- Encourage facilities to review reports regularly and make necessary improvements to help reach goals!

M&E Logistics

- Who is responsible for filing reports?
  - HTAs! If you have more than one HTA at your site, you should work together as a team to fill and submit all reports
- When will we start reporting?
  - As soon as you get to your site. You will receive your registers and forms during the next training session.
- When do I fill my reports?
  - Fill the first week of the following month (e.g. you would fill the monthly report for May the first week of June)
- Who will I submit my reports to?
  - You will have four copies of each monthly report. One is for doing calculations, the other three you should submit to:
    1. Your supervisor at the site
    2. The Tingathe DHPO
    3. Your own records at site