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Reproductive Health & HIV Research Unit
of the University of the Witwaters and, South Africa

Integrated TB/HIV services manual

Algorithms and standard procedures to ensure integrated service delivery for clients requiring TB treatment and HIV testing

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Abbreviations and acronyms

AFB	Acid-fast bacilli
ART	Antiretroviral therapy
CPT	Co-trimoxazole preventive therapy
CTX	Co-trimoxazole
CXR	Chest X-ray
HIV	Human Immunodeficiency Virus
INH	Isoniazid
IPT	Isoniazid preventive therapy
PHC	Primary health care
PPD	Purified protein derivative
PTB	Pulmonary tuberculosis
TB	Tuberculosis
TST	Tuberculin skin test
WHO	World Health Organisation

Sources and recommended reading

Bartlett JG, Gallant JE. Medical management of HIV infection. Johns Hopkins University 2006

Evian, C. Primary HIV/AIDS Care: A Practical Guide for Primary Care Personnel in a Clinical and Supportive Setting. Jacana, 2007

Harries A (Ed). TB/HIV a clinical manual. Stop TB Department. Department of HIV/AIDS.

Spencer, DC. The clinical practice of HIV medicine. Goldstream Books. 2005

Wilson D, Naidoo S, Bekker GL, Cotton M, Maartens G (Eds). Handbook of HIV Medicine. Oxford 2002

Pleaner M, Moleko W, Sibanyoni M. A Handbook of HIV Standards A resource to strengthen HIV services at Primary Health Care Facilities. RHRU HIV Management Cluster 2007

WHO HIV/AIDS Department – IMAI Project. Tuberculosis care with TB-HIV co-management. Integrated management of Adolescent and adult illness. WHO/HTM/HIV/2007

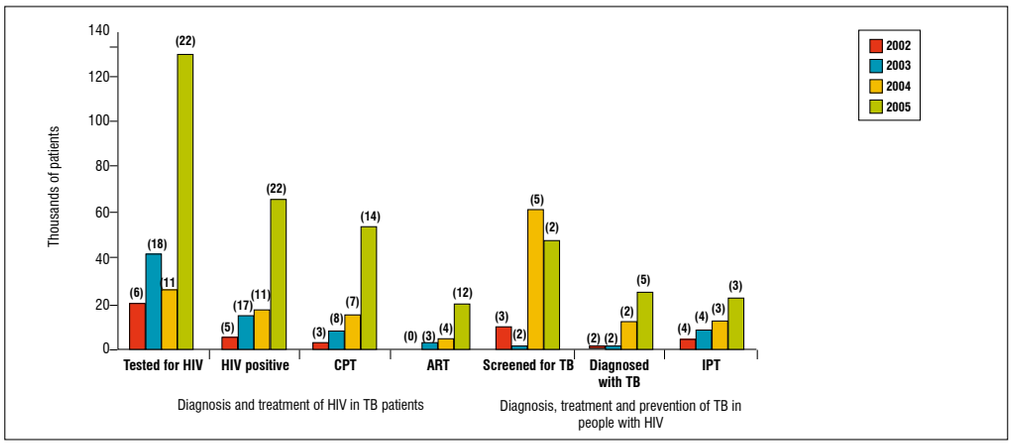
Introduction and background

In Sub-Saharan Africa, the TB and HIV epidemics are so closely intertwined in terms of their association with poverty, inequitable access to health care and their predilection for exacerbating the natural history of each condition, that in reality, the two diseases are causing one epidemic. In Southern Africa, the following facts are well established:

- In South Africa, the reported incidence of TB exceeds 600 cases/100,000 general population[1]
- In population-based observational studies on the mines and in localised communities, the TB prevalence exceeds 1200/100,000 general population[2 3]
- Amongst cases of tuberculosis in Southern Africa, in excess of 60% are HIV co-infected[4]
- Tuberculosis case-fatality rates (proportion of patients dying while on antituberculous treatment) in Africa are 16–35% in HIV positive individuals not receiving antiretroviral treatment and 4–9% in HIV-negative patients[5].

In the context of the above facts, TB services must accommodate for the needs of HIV co-infected patients, and HIV services and management of TB. Presently TB services are highly systematised, with defined outcomes, and accessible at every level of the health care system while HIV services remain localised to tertiary or accredited centres. TB services do little to integrate HIV care into their established case management practices. South Africa is not alone in struggling to establish collaborative practices between TB and HIV services. Figure 1 below illustrates progress on the African continent regarding collaborative TB/HIV services 2002-5.

Figure 1. Collaborative TB/HIV activities 2002-5: Progress in the African region[6]



This manual attempts to complement the National Strategic Plan[7] and other Department of Health guidelines for ARV and TB services by providing a systematic framework for the diagnosis and management of HIV infection including:

- Staging of HIV infection (by WHO clinical staging and CD4 count)
- Diagnosis and management of minor HIV-related complaints
- Screening for TB
- Diagnosis of TB in people living with HIV/AIDS including the scenario where screening tests (sputum microscopy) are negative
- Implementation of preventive measures for infections, including co-trimoxazole prophylaxis (CPT) and isoniazid preventive therapy (IPT).

Provision of ART, and anti-tuberculous therapy are both well described in existing guidelines; health care workers are referred to these publications where appropriate.

Footnotes

1 National Department of Health, April 2007
2 Wood R, Middelkoop K, Myer L et al. Undiagnosed tuberculosis in a community of high HIV prevalence. Am J Respir Crit Care Med. 2007;175:87-93
3 Corbett EL, Charalambous S, Fielding K et al. Stable incidence rates of tuberculosis (TB) among human immunodeficiency virus (HIV)-negative South African gold miners during a decade of epidemic HIV-associated TB J Infect Dis. 2003 Oct 15;188(8):1156-63.
4 Lawn SD, Bekker LG, Middelkoop K et al. Impact of HIV Infection on the Epidemiology of Tuberculosis in a Peri-Urban Community in South Africa: The Need for Age-Spec fic Interventions. Clinical Infectious Diseases 2006; 42:1040–7
5 Ya Diul M, Maher D, Harries A. Tuberculosis case fatality rates in high HIV prevalence populations in sub-Saharan Africa. AIDS 2001; 15: 143–52.
6 Alisdair Reid, UNAIDS. Presentation at SADC Regional TB Advocacy Summit, 16-17 August 2007
7 National Department of Health. HIV&AIDS and STI Strategic plan for South Africa 2007-2011. November 2006. Accessed on October 2007 at www.info.gov.za,

Overview of the Integrated TB/HIV services manual

Section A presents:

- The Roadmap of services for primary health care of people living with HIV before the commencement of antiretroviral therapy,
- An explanation of how the Roadmap can be used to facilitate provision of services in a structured and coherent manner, and guidelines for how frequently each service can be offered.

How to use section A:

- Section A is useful in your facility whether you use the tools in section B or not
- Photocopy the Roadmap (or obtain posters of the Roadmap from RHRU) and place them in prominent places in your health care facility
- Use the Roadmap to decide which services are required by people living with HIV.

Section B presents:

- Tools for implementation of services described in the Roadmap; these include:
  - The TB/HIV services Register
  - The Wellness Register
  - The Patient Registration Form and Clinic Visit Record
  - The Health Passport.
- Proposed models of care in which the tools can be used at a primary health care level.
- A reproduction of each tool (completed as an example with particulars from a fictitious patient) and instructions on how to complete the tool.

How to use section B:

- Section B is only relevant in your facility if you use the tools described in the section
- Use section B as a reference to assist with training health care workers to use the tools, or to assist with completion of the tools.

Section C presents:

- Descriptions for performing each procedure or intervention that is listed in the Roadmap
- Each intervention is described in text form using the following format:
  - Aim of the intervention:
  - Who should have this intervention?
  - Who should perform this intervention?
  - Material required to perform the intervention:
  - How to perform the intervention:
  - Action following the intervention:
- Job Cards, Algorithms or Check lists follow the text description of the intervention.

How to use section C:

- Section C is relevant in your facility whether you use the tools in section B or not
- Use relevant parts of section C to train health care workers to provide services listed in the roadmap.
- Photocopy Job Cards or algorithms after each section for specific uses:
  - Job Cards that are algorithms (Job Cards 1, 3, 4, 5, 7, 9) can be photocopied and placed in prominent spots in consulting rooms to assist health care workers to make decisions regarding care of patients.
  - Job Cards that are posters (Job Cards 6, 8) and the poster for Tuberculin Skin testing (section 8) can be obtained in A1 format from RHRU or they can be photocopied for display in your facility for quick reference purposes.
  - Check lists can be completed for individual patients and kept in the patient's file.

section

A

A systematic way of integrating TB/HIV services

a. The Roadmap

Roadmap
for primary health care of people living with HIV before commencement of antiretroviral therapy

Client on TB treatment

Client requests HIV test or client presents for any clinic service

HIV test offered (Section 1)

Information and education given
See Job Card 2. Counselling aid to explain the natural history of untreated HIV infection

Pre-test counselling given
See Counselling Check list

- Counsel regarding strategies to remain negative
- Explain 'the window period'
- Advise regular repeat testing

HIV test (Section 2)

See Job Card 3.
Rapid (point of care) HIV testing

Negative HIV test

Positive HIV test

Screen for TB (Section 3)

See Job Card 4.
Screening for active tuberculosis

TB symptoms present

TB symptoms absent
OR on TB treatment

Investigate for TB (Section 4)

See Job Card 5. Collection of sputum for TB investigations
See Job Card 6. Diagnosis of TB in high HIV prevalent areas
See Job Card 7. Basic interpretation of chest X ray

Proceed while TB investigations are being completed
If TB is diagnosed, commence treatment according to the National TB Control Programme guidelines and continue with the algorithm

CD4 testing (Section 5)

Staging of HIV (Section 6)

See HIV staging checklist

Treat minor HIV-related complaints (Section 7)

See Job Card 8. Identification and treatment of minor HIV-related infections

Tuberculin skin testing and INH prophylactic therapy (Section 8)

See Poster: Tuberculin skin testing and interpretation

Give INH if eligible
Continue with algorithm

Co-trimoxazole prophylaxis and antiretroviral therapy (Section 9)

See Job Card 9. Assessment of eligibility for cotrimoxazole prophylaxis and antiretroviral therapy

Give CTX if eligible
Continue with algorithm

Not eligible for ART

Eligible for ART

Commence ART

Refer South African National Antiretroviral Treatment Guidelines

Repeat algorithm every visit*

* Evaluate client at each visit to see if each service is necessary

b. The role of the Roadmap

The Roadmap is designed as a job aid to assist health care workers to assess which services may be required by clients requiring different aspects of HIV care. The Roadmap provides logical guidelines to ensure that HIV services are provided in a thorough and systematic manner.

So, for example:

- A client on TB treatment who requires an HIV test:
  - Using the roadmap, the health care worker will identify that this client needs pre-test counselling and HIV testing. If HIV-positive this client will require CD4 testing, treatment of minor HIV-related complaints, evaluation for co-trimoxazole prophylaxis and antiretroviral therapy. This client does not require screening or investigation for TB tuberculin skin testing or INH prophylactic therapy.
- A client who presents to PHC for treatment of a sexually transmitted infection:
  - Using the roadmap, the health care worker will identify that this client needs pre test counselling, HIV testing, screening for TB (including investigation for TB if TB screen positive) and if HIV-positive, CD4 testing, treatment of minor HIV-related complaints, and evaluation for co-trimoxazole prophylaxis, INH prophylaxis and antiretroviral therapy.
- A client who is living with HIV infection (a "known positive") and presents for a routine 6-monthly checkup
  - Using the roadmap, the health care worker will identify that this client needs screening for TB (including investigation for TB if TB screen positive), CD4 testing, staging of HIV, treatment of minor HIV-related complaints, TST and evaluation for co-trimoxazole prophylaxis, INH prophylaxis and antiretroviral therapy.

c. How frequently should Roadmap services be offered?

Service	Category of client	Frequency with which test should be offered
HIV testing	HIV-negative clients	Annually, unless client gives a history of recent high risk behaviour
	HIV-positive clients	Once per lifetime
Screening for TB (required for HIV positive and HIV-negative clients)	Clients not on TB treatment	Every visit to the clinic
	Clients on TB treatment	Not required
Investigation for TB disease (required for HIV positive and HIV-negative clients)	Only when clients have symptoms of TB	
CD4 testing (only for HIV-positive clients)	All clients who are newly diagnosed with HIV infection	
	All known HIV-positive clients who have had previous CD4 count tests, but present with a new illness (e.g. TB)	
	For clients who have had a previous CD4 count and are well, CD4 count should be repeated as follows: Initial CD4 value: >400 cells/mm^3 ⟶ Annually >250-400 cells/mm^3 ⟶ Every 6 months >200-250cells/mm^3 ⟶ Every 2-3 months	
Staging of HIV (only for HIV-positive clients)	All clients who are newly diagnosed with HIV infection	
	All known HIV-positive clients who present with a new illness (e.g. TB)	
Treatment of minor HIV-related complaints (only for HIV-positive clients)	All HIV-positive clients	Every visit
Tuberculin skin testing and INH prophylactic therapy (only for HIV-positive clients)	If eligible for INH preventive therapy Clients who are eligible are well with CD4>200, not on ART not on TB treatment (or completed TB treatment or IPT in the last two years)	Annual skin testing
Assessment of eligibility for co-trimoxazole prophylaxis and ART	All clients	Every visit when HIV is staged, CD4 count repeated or a new illness is diagnosed (e.g. TB)

section

B

Tools for the systematic integration of TB/HIV services

1. Implementation of integrated TB/HIV services at primary health care facilities

a. Different models for integration of TB and HIV Services

Team work and collaboration is necessary to provide quality integrated services for HIV and TB patients that access care at the PHC level. The models represented below provide an example of how functional TB/HIV collaboration can be acheived .

Model A:

Vertical TB service at PHC level.

HIV services at tertiary hospital or accredited HIV provider sites

Model B:

Vertical TB service remains.

HIV services integrated into PHC general adult services

Cross-referral of the TB/ HIV client

Model C:

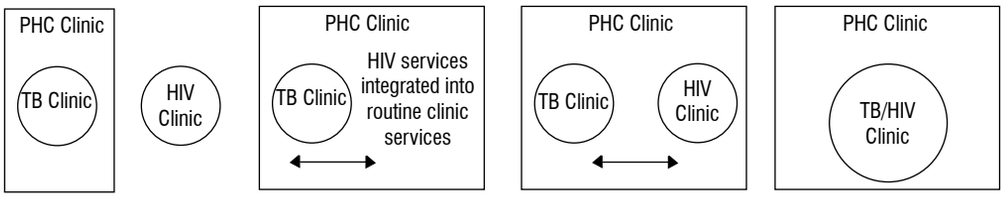
Vertical TB service.

Vertical HIV service.

Cross-referral of the TB/ HIV client

Model D:

Combined vertical TB/HIV programme provides services to HIV and TB patients at one clinic at PHC level



	A	B	C	D
Model	Vertical TB service at PHC level. HIV service at tertiary/accredited sites.	Vertical TB service remains. HIV services integrated into PHC general adult services, cross referral of the TB/HIV client from TB to general adult services and vice versa.	Vertical TB service remains. Vertical HIV service operational at PHC level. Cross-referral of the TB/HIV client from TB to HIV services and vice versa.	Combined vertical TB/HIV programme.
Description	TB service continues to function as it is. TB patients referred to HIV clinic for counselling, testing and HIV care. All HIV co-infected patients referred to PHC service or local centre for management of TB.	TB service offers services to HIV-infected TB patients. HIV patients are serviced by routire PHC services and provided with staging of disease/ CD4 counts, CPT, IPT, ultimately ART.	TB service offers services to HIV-infected TB patients. HIV patients are serviced by HIV clinics within primary health care facilities, with the following services: staging of disease/ CD4 counts, CPT, IPT, ultimately ART.	TB vertical programmes unite with HIV programmes at all levels including National, Provincial and District.
Advantages	TB care remains focused.	TB services are able to refer their HIV infected clients for routine clinic services within the same facility.	TB services are able to refer their HIV infected clients to a specific HIV service within the same facility.	Would result in excellent public health management of TB and HIV including case finding, clinical care, monitoring and evaluation, drug supply, and social mobilization.

Advantages (cont.)		HIV services are integrated into PHC services. HIV assumes its status as a 'chronic disease' in RSA community, along with diabetes, HT, asthma. All PHC staff become conversant with managing HIV. HIV ceases to be treated as a 'special condition'.	HIV services are vertically organised, facilitating better control at district, provincial and national level in terms of adherence to protocols, managing drug supply, monitoring and evaluation and individual case managemen.	
Disadvantages	A disjointed service, resulting in inadequate service delivery and loss to follow-up of patients because of referral outside primary point of contact with health service. Focussed TB care will result in neglect of HIV-related conditions of TB patients and poor TB outcomes	TB control programme needs to adapt to offer HIV patients a complete service. PHC services need to include HIV amongst the 'chronic' diseases. This would require technical, operational, logistic input, including drug supply management, indicators etc.	TB control programme needs to adapt to offer HIV patients a complete service. HIV vertical service needs to be established in each PHC.	Would require an entire national reorganization of HIV and TB services. There is no international model to follow. Risk that HIV agenda overshadows TB if policy, roles and responsibilities not clearly defined.

b. Possible roles of health care workers in the delivery of integrated TB/HIV services

In the absence of defined roles for service delivery of integrated TB/HIV services at a primary health care setting, each facility needs to work out their own structure of service delivery. The required services are listed below, along with suggested roles.

Service	Health care worker	Role/Action to follow
Health Counselling	• lay counsellor • professional counsellor • social worker (all nurses and doctors with counselling skills may also perform this service)	• Provide pre-test information and education (*Job Card 1*) • Pre-test counselling (*Job Card 2*) • Post-test counselling (*Job Card 2*) • Complete relevant parts of the TB/HIV Services Register (*Section B2*)
Rapid HIV Testing	• General PHC nurse • TB nurse • Clinic doctor	• Perform finger prick test • Interpret test result • Complete relevant portions of the TB/HIV Services Register (*Section B2*)
Screening for active tuberculosis	• Lay counsellors • TB nurse • General PHC nurse • Clinic doctor	• Enquire if client has any signs or symptoms of TB • Classify client as TB suspect • Document client as TB suspect in clinic TB Suspect Register • Fill in the TB/HIV Services Register (*Section B2*), Patient Registration Form and Clinic Visit Record
Diagnosis of TB	• TB nurse • Clinic doctor	• Collection of spot sputum specimen • Give client clear instructions on how to collect overnight sputum specimen (*Job Card 5*) • Follow up on sputum result and document result in clinic TB Suspect Register • Fill in the TB/HIV Services Register, Patient Registration Form and Clinic Visit Record
Tuberculin skin testing	• TB nurse • Clinic doctor	• Administration of PPD to client • Interpretation of PPD test • Complete relevant sections in the TB/HIV Services Register (*Section B2*)
Staging of HIV infection	• General PHC nurse • Clinic doctor	• Perform staging by taking a clinical history, and examination • HIV staging Check List (*Section C6 b*) can be used
INH prophylactic therapy (IPT)	• TB nurse • Clinic doctor	• Administer IPT • Document that client is receiving IPT in the Wellness Register • Fill in the TB/HIV Services Register and Clinic Visit Record
Cotrimoxazole prophylactic therapy (CPT)	• General PHC nurse • TB nurse • Clinic doctor	• Administer CPT • Document that client is receiving CPT in the Wellness Register • Fill in the TB/HIV Services Register and Clinic Visit Record
Antiretroviral therapy (ART)	• General PHC nurse • TB nurse • Clinic doctor	• Follow DoH ART guidelines • Document that client is receiving ART in PITC Register • Fill in the Clinic Visit Record

c. Roles and functions of TB, Curative and HIV counselling services at PHC facilities

The table below demonstrates that collaboration and co-operation by the different services within PHC facilities is essential as clients require services that are given by different people. Interventions that are not given by TB services are given by Curative or HIV counseling services and clients must be cross-referred. The same is true of Curative and HIV counseling services.

	TB services	Curative services	HIV Counselling services
Services offered	• Diagnosis of TB • Administration of TB treatment (DOTS) • Administration and interpretation of TST • Administration of IPT	• Diagnosis of HIV by rapid HIV testing • Treatment of all minor HIV related illnesses/complaints • Screening for TB symptoms • Staging of HIV infection • Collection of blood for CD4 count testing	• Information and education about HIV • Pre-test HIV counselling • Post-test HIV counselling • Screening for TB symptoms
Services not offered (thus client must be referred within the facility)	• HIV testing • Clinical staging of HIV • Treatment of minor HIV-related complaints	• Diagnosis of TB • Administration and interpretation of TST • Administration of IPT • Pre and post-test HIV counselling	• Diagnosis of TB • Administration of TB treatment (DOTS) • Administration and interpretation of TST • Administration of IPT • Treatment of all minor HIV related illnesses/complaints • Screening for TB symptoms • Staging of HIV infection • Collection of blood for CD4 count testing
Registers to be completed	• Relevant sections in TB/HIV Services Register • Relevant sections of the Wellness register • TB suspect register • TB treatment register	• Relevant sections in TB/HIV Services Register • Relevant sections of the Wellness register	• Relevant sections of the TB/ HIV Services Register

2. The Provider Initiated Testing and Counselling (PITC) Register, also referred to as the TB/HIV Integrated Services Register

The PITC register has been improved and several columns added to the version reproduced in this manual

Purpose of the TB/HIV Services Register
The register will allow the health care worker to:

- Determine which investigations may be outstanding prior to commencing ARTs
- Monitor and evaluate the services being delivered to people living with HIV at their facility.

Which clients should be recorded in the TB/HIV Services Register?

All clients undergoing HIV testing.

All HIV positive clients not yet eligible for ART including:

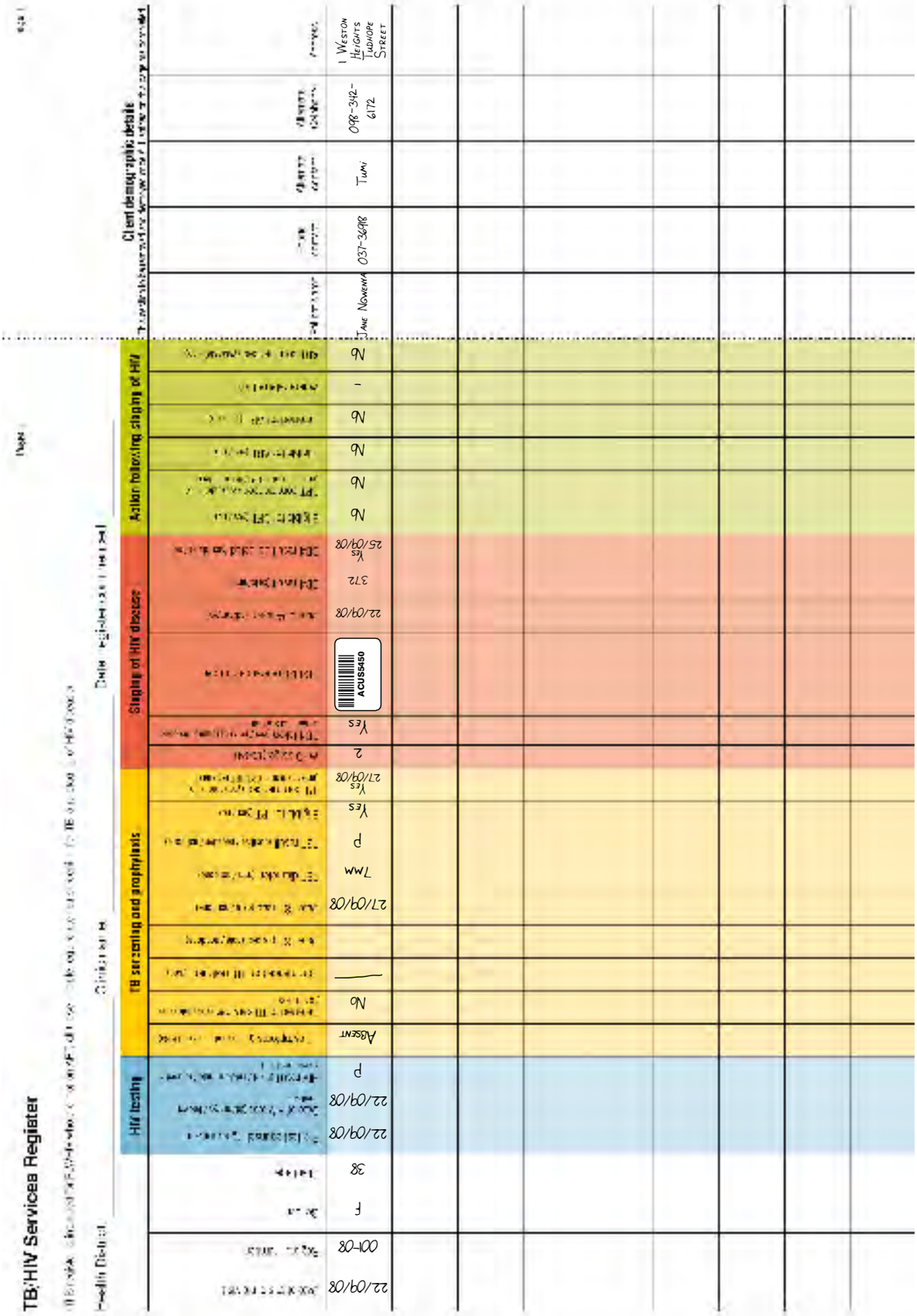
- Clients who are confirmed to be HIV positive and require CD4 testing, staging of HIV or TB screening
- HIV clients who are well and require assessment of eligibility for INH prophylaxis and co-trimoxazole prophylaxis.

Where should the TB/HIV Services Register be kept and who is responsible for completion?

One TB/HIV Services Register should be kept in a PHC facility:

- A named person should be responsible for completion of the register. This person should be a PHC nurse, but could be a nursing assistant.
- Health care workers from different services within the PHC should liaise with the named person in order to ensure that TB/HIV Services Register is completed. For example;
  - the counsellors should report to the named person to ensure that a client is entered into the register
  - The TB services should report to the named person regarding the diagnosis of TB in a client who is entered into the register and is commenced on TB treatment.
- The person who is responsible for completion of the register is also responsible for arranging follow-up of defaulting clients.

a. Sample of TB/HIV Services Register



TB/HIV Services Register

	HIV testing				TB screening and prophylaxis										Stigma of HIV disclosure					Action following stigma of HIV							Client demographic details					
22/09/08	22/09/08	22/09/08	38	F	80-100	Absent	No	—		27/09/08	7mm	P	Yes	27/09/08	2	Yes	ACU55450	22/09/08	372	25/09/08 Yes	No	No	No	No	—	No	Jane Nowenya	037-3698	Tumi	098-342-6172	1 Weston Heights Tuhiope Street

b. Instructions on how to complete the register

1. The White sections (The register number, date of clinic visit and Client demographic details)

- Assign a register number (e.g. 01/2007)
- Write the date of the initial visit
- Fill out the clients contact details (If possible include more than one contact number including the number of a close relative/friend to whom the client has disclosed and is happy to list as an alternative contact)
- Write down the client's residential address (NOT the postal address).

2. The Turquoise section (HIV testing).

Complete this section as soon as the test result is available.

- In the space marked "pre-test counselling"
  - i. Write down the date of when the counselling was done.
- In the space for HIV test
  - ii. Write down the date when the client is tested for HIV
  - iii. If the client knows that he/she is HIV positive write 'Known Positive' or 'KP'.
- In the space for HIV test result
  - iv. Write down if the result is positive, negative or discordant
  - v. Write down that patient refused testing if client was not agreeable to HIV testing
  - vi. If the client knows that he/she is HIV positive write 'Known Positive' or 'KP'.

3. The Yellow section (TB screening and prophylaxis)

Complete the TB screening columns at the first visit. The columns relating to TST can only be completed once the health care worker has established that the client is eligible for TST.

- In the space marked "TB symptoms"
  - i. Write "present" if the client has symptoms of TB.
  - ii. Write "absent" if the client does not have TB symptoms
  - iii. Write "on TB treatment" if the client is already on TB treatment.
- In the space marked "Referred for TB services"
  - i. Give the date when the client was referred
  - ii. If the client is already on TB treatment write down that client is on TB treatment
- In the space marked "TST placed"
  - i. Write down the date of when the TST is placed
  - ii. If TST is not done for any reason, write not done in this space
- In the space marked "TST read"
  - i. Write down the date when the TST is read
  - ii. If the TST has not been done write down, "not done"
- In the space marked "TST diameter"
  - i. Write down the diameter of the induration caused by the PPD
  - ii. If the TST was not done write that it was not done
- In the space marked "TST result"
  - ii. Write "positive" if the induration measured > 4mm in diameter
  - ii. Write "negative" if the induration measured < 4mm in diameter
  - iii. Write down "not done" if the TST was not done
- In the space marked eligible for IPT
  - i. Write "yes" if client is eligible for IPT
  - ii. Write "no" if client is not eligible for IPT
- In the space marked "IPT commenced"
  - i. Write down the date that the IPT is started
  - ii. If the client is not started on IPT write "no" in the space provide

4. The Red section (Staging of HIV disease)

- In the space marked "WHO stage"
  - i. Write down the clinical stage of the clients disease (refer to job card 6)
- In the space marked "CD4 count test"
  - i. Write down the CD4 count result.
  - ii. Write down "not done" if the CD4 count is not done at that visit
- In the space for the CD4 lab reference number
  - i. Remove the sticker with the laboratory reference number and stick it in the TB/HIV Services Register
- In the space marked "date CD4 taken "
  - i. Write down the date when the CD4 test was done
- In the space marked "CD4 result "
  - i. Write down the CD4 count as given in cells/mm
- In the space marked CD4 result collected
  - i. If the client collected the CD4 result, write "Yes" and the date on which the results were collected.
  - ii. If the client did not collect the CD4 result, write "No". "No" should only be written in this section if repeated attempts to trace the client have failed.

5. The Green section (Action following staging of HIV)

This section should be completed once the client's CD4 count and stage of HIV are established. Then a good assessment can be made of what subsequent services are required by the patient, including CPT and referral for ART.

- In the space marked "elig ble for CPT"
  - i. Write "yes" if client is eligible
  - ii. Write "no" if client is not eligible
- In the space marked "CPT commenced"
  - i. Write "yes" and the date that CPT was commenced if client is taking CPT
  - ii. Write "no" if client has not commenced CPT
- In the space marked "elig ble for ART"
  - i. Write "yes" if the client meets the criteria to commence ART
  - ii. Write "no" if the client is not eligible for ART
- In the space marked "referred for ART"
  - ii. Write "yes" if the client has been referred for ART
  - ii. Write "no" if the client has not been referred for ART
- In the space marked "where referred for ART"
  - i. Document where the client was referred to initiate ART
- In the space marked "commenced ART"
  - i. Write down yes if the client is started on ART
  - ii. Write down no if the client is not started on ART

3. The Wellness Register

a. Sample of the Wellness Register

Wellness Register for administration of Isoniazid Prophylactic Therapy (IPT) and Co-trimoxazole Prophylactic Therapy (CPT)

Client demographic details									Assessment results					
Reg. number	Date of the clinic visit	Gender	Age	Patient name	Phone contact	Alternate contact	Alternate Cellphone	Address	Previous HIV test result (+ / - / Unk)	Previous HIV test date (dd/mm/yyyy)	TB screen (Negative / + / Unk)	TST date (dd/mm/yyyy)	Eligible for IPT (Yes/No) assessed	Eligible for CPT (Yes/No) assessed
1	22/09/08	F	38	Jane Nowenya	037-36918	Tumi	082-342-6172	1 Weston Heights Tudhope Street	+	22/09/08	Tmm	25/09/08	Yes 27/09/08	No 27/09/08

Purpose of the Wellness register:
The register will allow the health care worker to ensure that clients who are eligible for INH prophylaxis and co-trimoxazole prophylaxis receive a complete course of treatment and are retained in care within the PHC.

Clients who default IPT can be traced through the Wellness Register

Which clients should be recorded in the Wellness Register?
All clients who are found to be eligible for IPT and/or CPT according to the Roadmap of services

Where should the Wellness Register be kept and who is responsible for completion?
One Wellness register should be kept in a facility

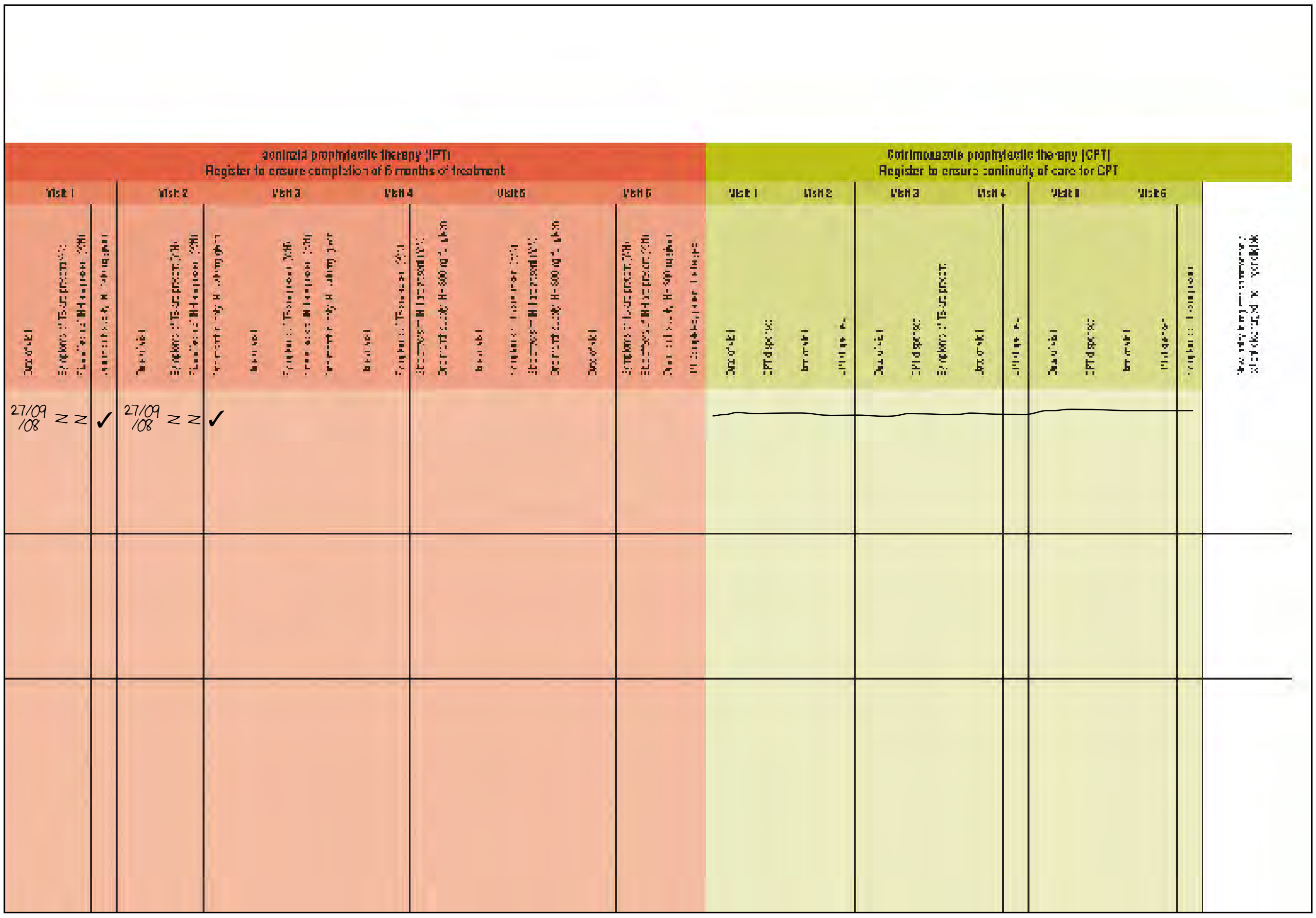
- A named person should be responsible for completion of the register. This person could be a nurse, a lay counsellor or DOT supporter
- Each PHC facility should establish a point of care for clients to receive their IPT and CPT with a minimum of inconvenience. This may mean that the Wellness register is kept in different locations from clinic to clinic. The TB services are the most likely place for keeping the Wellness Register
- The person who is responsible for completion of the register is also responsible for arranging follow-up of clients who default services.

b. Instruction on how to complete Wellness Register

The Wellness register is made up of four sections. Each section is further subdivided so that information about the client and the client's medication may be documented.

1. The White section (Client demographic details)

- Write down the clients name and surname in the space provided.
- Write down the clients contact details and alternative contact details in the spaces provided.
- Write down the clients residential address in the space provided. (DO NOT use the clients postal address).



2. The Yellow section (Assessment results)

- In the space marked "previous HIV test result"
  - i. Write down whether the client is HIV positive.
- In the space marked "previous HIV date"
  - i. Write down the date when the previous HIV test was done
  - ii. If this information is not known, document it as such.
- In the space marked "eligible for IPT"
  - i. Write down the date when the patient was assessed for IPT
- In the space marked "TST result"
  - i. Write down the diameter of the induration
- In the space marked "TST date"
  - i. Write down the date when the TST was done
- In the space marked "eligible for CPT"
  - i. Write down the date when the assessment was done

3. The Red section (INH prophylactic therapy)

If the client is not eligible for IPT, this section should not be completed and a line should be drawn through visits 1-6.

For each visit:

- In the space marked "date of visit"
  - i. Write down the date that the client presents to the PHC for IPT
- In the space marked "symptoms of TB present"
  - i. Write "yes" if client has TB symptoms at that visit
  - ii. Write "no" if client has no TB symptoms at that visit
- In the space marked "side effects of INH present"
  - i. Write "yes" if client has any side effects from INH at that visit
  - ii. Write "no" if client has no side effects from INH at that visit
- In the space marked "one months supply INH 300mg given"
  - i. Write "yes" if client was issued with INH 300mg for the month.
  - ii. Write "no" if the client was not issued with INH 3oomg for the month.

4. The Green section (Visits for clients who are eligible for CPT)

If the client is not eligible for CPT, a line should be drawn through the green section

- For each visit that the client presents to the PHC
  - i. Write down the date that the client is at the clinic
  - ii. Write "yes" if the client was issued cotrimoxazole in the space provided.
- The client should be assessed for any symptoms of TB every three months.
- If the client is no longer eligible for CPT this can be documented in the space provided.

4. The Patient Registration Form and Clinic Visit Record (Pink cards)

a. Sample of Patient Registration Form

PATIENT REGISTRATION FORM

PHC Facility: _____ **Today's date (dd/mm/yy):** 25/09/07

Referred from: _____

Date of down-referral: _____

Down-referral letter presented by patient: Yes ☑ No ☐

1. CLIENT INFORMATION

First Name: Jane

Last Name: Ngwenya

Known name: _____

Date of Birth: 04/11/1970

Gender: Male ☐ Female ☑

Occupation: Shop assistant

2. CLIENT CONTACT INFORMATION

Place of residence: 1 Weston Heights Turdhope Street

Place of employment: 3 Main Reef

Tel (home): 011 455-7890

Cell: 082 552 6702

Next of kin/friend (name/relationship): Tumi

Next of kin/friend phone#: 082 343 6512

3. SPECIFIC GUIDANCE FROM DOWN-REFERRAL SITE:

None ☑ See enclosed ☐

4. PAST MEDICAL HISTORY (General)

Diabetes: Yes ☐ No ☑

Epilepsy: Yes ☐ No ☑

Hypertension: Yes ☐ No ☑

Asthma: Yes ☐ No ☐

Previous admissions to hospital: Yes ☑ No ☐

If yes - reason (s): _____

Current Medications: _____

5. PAST MEDICAL HISTORY (HIV)

Date of first HIV test: 22/09/08

Baseline CD4 count: 372 ; **Date:** 22/09/08

Last CD4 count: ND ; **Date:** _____

Baseline Viral Load: ND ; **Date:** _____

Last Viral Load: ND ; **Date:** _____

ART initiation date: Not yet initiated

First ART regime: _____

Current ART regime: _____

Previous side effects to ART: Yes ☐ No ☐

If yes - specify & date: _____

On CPT: _____

Disclose to partner/family: Yes; to boyfriend

6. PAST MEDICAL HISTORY (TB)

Previous TB treatment: Yes ☑ No ☐

If yes - start date of treatment: _____

Previous IPT: Yes ☐ No ☑

If yes - start date of treatment: _____

Current TB symptoms: Cough>2weeks ☐ Fever ☐ Loss of weight ☐

Tuberculin Skin Test placed: 25/09/08

Read: 27/09/08

Diameter of induration: ☐☐ mm (If>4mm, eligible for IPT)

7. COMMENTS AND ADDITIONAL TESTS

PAP smear date: Not done

PAP smear results: _____

Hepatitis B serology: _____

Syphilis serology: _____

Purpose of the Patient Registration Form:
This form will capture the baseline information on all clients who enter the clinic for the purposes of HIV services.

Which clients should have a Patient Registration Form completed
All clients who are found to be HIV positive at the facility or who are referred in to the facility to receive HIV treatment (including down-referred clients or clients already on ART)

Where should the Patient Registration Form be kept?
The patient registration form must remain in the clinic, and be stapled to the ordinary clinic card (white card).

Who is responsible for the completion of the Patient Registration Form?
The PHC nurse who sees the client should complete the Patient Registration Form.

b. Instructions on how to complete the Patient Registration Form (Pink card)

The date that the client presents to the clinic must be documented where it is written "today's date". The clinic details and details of the client's referral must also be completed.

Section 1 and 2

- Write down the demographic details that are given to you by the client

Section 3

- Document any instructions that were given by the staff at the initiation site

Section 4

- Write down any past medical condition that the client may have been diagnosed with
- Write down any history of hospital admissions and write down what the admissions were for.

Section 5

- Complete this information using the referral letter or history given by the client
- Some investigations may need to be done when the client presents for the first time to the PHC and will only be available a few days after the client has been seen.

Section 6

- Complete this information using the referral letter or history given by the client
- Some investigations may need to be done when the client presents for the first time to the PHC and will only be available a few days after the client has been seen.

Section 7

- In the comments section, document allergies, mental state, general health etc
- Record results of supplementary investigations if available.

c. Sample of a Clinic Visit Record

CLINIC VISIT RECORD

Patient Name (First, Surname): Jane Ngwenya **Date of Birth:** 04/11/1970

VISIT Date (dd/mm/yy): 27/10/08

Confirm client tel #: 082 567 5867

TB symptom screen:

Night sweats: Yes ☐ No ☑
Fever: Yes ☐ No ☑
Loss of weight: Yes ☐ No ☑

Weight: 56kg
Blood pressure: 120/80 mmHg

Current medication:
CPT: Yes ☐ No ☑
IPT: Yes ☑ No ☐
TB Rx: Yes ☐ No ☐
ARV Regimen: Not yet initiated

Last CD4 count: 372 ; **Date:** 22/09/08
Last VL: ____ ; **Date:** ____
Pt. Complaints: None
Side effects: None
NOTES: Doing well
Compliant with IPT

TTO: ____

VISIT Date (dd/mm/yy): ____
Confirm client tel #: ____
TB symptom screen:
Night sweats: Yes ☐ No ☐
Fever: Yes ☐ No ☐
Loss of weight: Yes ☐ No ☐
Weight: ____
Blood pressure: ____
Current medication:
CPT: Yes ☐ No ☐
IPT: Yes ☐ No ☐
TB Rx: Yes ☐ No ☐
ARV Regimen: ____
Last CD4 count: ____ ; **Date:** ____
Last VL: ____ ; **Date:** ____
Pt. Complaints: ____
Side effects: ____
NOTES: ____
TTO: ____

VISIT Date (dd/mm/yy): ____
Confirm client tel #: ____
TB symptom screen:
Night sweats: Yes ☐ No ☐
Fever: Yes ☐ No ☐
Loss of weight: Yes ☐ No ☐
Weight: ____
Blood pressure: ____
Current medication:
CPT: Yes ☐ No ☐
IPT: Yes ☐ No ☐
TB Rx: Yes ☐ No ☐
ARV Regimen: ____
Last CD4 count: ____ ; **Date:** ____
Last VL: ____ ; **Date:** ____
Pt. Complaints: ____
Side effects: ____
NOTES: ____
TTO: ____

VISIT Date (dd/mm/yy): ____
Confirm client tel #: ____
TB symptom screen:
Night sweats: Yes ☐ No ☐
Fever: Yes ☐ No ☐
Loss of weight: Yes ☐ No ☐
Weight: ____
Blood pressure: ____
Current medication:
CPT: Yes ☐ No ☐
IPT: Yes ☐ No ☐
TB Rx: Yes ☐ No ☐
ARV Regimen: ____
Last CD4 count: ____ ; **Date:** ____
Last VL: ____ ; **Date:** ____
Pt. Complaints: ____
Side effects: ____
NOTES: ____
TTO: ____

Purpose of the Clinic Visit Record:
The card will be used for any subsequent visits to the clinic for services related to HIV infection. Baseline information obtained at the first visit will be recorded on the Patient Registration Form. The card on which the Clinic Visit Record is printed is divided into four identical sections. A single section should be completed at each visit.The Clinic Visit Record will document:

- all the visits that are made by the client
- the complaints that are brought to the attention of the health care worker
- any complications or disease progression noted by the health care worker.

Which clients have a Clinic Visit Record completed?
All HIV positive clients that present for follow up to the health care facility

NB: The patient registration form MUST be completed before clients details are entered into the client visit record

Where should the Clinic Visit Record be kept?
The clinic visit record must remain in the clinic, and be stapled to the ordinary clinic card (white card).

Who is responsible for the completion of the Clinic Visit Record?
The PHC nurse who sees the client should complete the Clinic Visit Record.

d. Instructions on how to complete the Clinic Visit Record (Pink card)

Weight and blood pressure must be taken and written down in the spaces provided

Screening for any signs of TB must be done

- Tick Yes if the client has any TB symptoms
- Tick No if the client has no TB symptoms.

Document whether client is taking CPT

- Tick Yes if the client if taking CPT
- Tick No if the client is not taking CPT.

Document whether the client is on TB treatment

- Tick Yes if the client is taking treatment for TB tick
- Tick No If the client is not taking TB treatment.

Document whether the client is taking IPT

- Tick Yes if the client is taking IPT
- Tick No if the client is not taking IPT.

Document whether the client is on ART

- If the client is on ART, document which regimen the client is taking.

Write down:

- The clients last CD4 count in the space provided
- The date when the last CD4 count was taken in the space provided.

Write down the client's last viral load in the space provided

Write down the date when the last viral load was taken in the space provided

If the client has any complaints these can be documented in the space provided

If the client presents with or complains of any side effects write these down in the space provided

In the section for notes write down important information such as:

- Drugs that are stopped
- Date when drugs are stopped
- Reason for stopping drugs
- Abnormal findings on examination
- Poor social circumstances
- Deterioration of health.

If the client is issued with medication to take home these must be documented in the section provided

5. The Health Passport (Yellow card)

a. Sample of the Health Passport

(Outside)

Section 3

Co-morbidities	Date of Diagnosis

Clinic's Attended	Period	Clinic Number

Appointment Dates

HEALTH PASSPORT

Section 1

Surname: NGWENYA

First Name: JANE

Date of Birth: 04/11/1970

Date Initiated on ARV: NOT INITIATED

BASELINE CLIENT ASSESSMENT

Reactive HIV Test Date d d / m m / y y

CD4 Count Date d d / m m / y y

WHO Stage 1 ✓2 3 4

Previous TB treatment: ✓ Yes ☐ No

From 0 2 / 0 0 To 0 7 / 0 0

Current TB Symptoms? ___ Persistent Fever ✓ Loss of Weight

___ Cough > 2 weeks

Tuberculin Skin Test placed: 2 5 / 0 9 / 0 8

Read: 2 7 / 0 9 / 0 8

Diameter of Induration: ☐ 7 mm

Eligible for Isoniazid prophylactic therapy (IPT)? ✓ Yes No

Eligible for Co-trimoxazole therapy (CPT)? ___ Yes ✓ No

Eligible for Anti-retroviral therapy (ART)? ___ Yes ___ No

(Inside)

Section 2

CD4 COUNTS

CD4 (cells/µl) 372

BODY WEIGHT

Weight range (or kg measurements) 56

Date	27/10/08				
TB symptoms	No				
Blood pressure	120/80				
Temperature	36,5				
Medications:					
IPT	✓				
CPT	✗				
TB treatment	✗				
ARVs	✗				
Other therapy:	✗				
Viral load	✗				
Comments	WELL				

Purpose of the Health Passport
Complete this card at each visit to the PHC. This will allow the client the to be able to give an accurate history should he/she end up at a health institution where he/she may not be known by the health care workers.

Which clients should have the Health Passport completed?
All HIV positive clients that attend the PHC who are willing to carry the card with them should have a completed record. If a client is not willing to carry the card, gently explore the reasons for this. It may be that the client has not disclosed his/her status to those with whom they live. For these clients, offer to complete a yellow card at each subsequent visit.

Where should the Health Passport be kept?
The Health Passport should be kept by the client.

Who is responsible for completing the Health Passport?
The PHC nurse who sees the client will document all the relevant findings on the Health Passport. The PHC nurse will remind the client of the benefit of keeping the card up to date, and that it can be useful to present to other health care providers (e.g casualty) in the event of an emergency.

b. Instructions on how to complete the Health Passport (Yellow card)

Section 1

1. The demographics details
   - The clients surname, name and date of birth must be filled out in the space provided
2. Antiretroviral therapy details
   - The date when ART was initiated is to be written down in the space provided.
3. Baseline assessment details
   - Write down the date when the client had a positive HIV test in the allocated area
   - Write down the client's first CD4 count and the date when it was done
   - Write down what the clients WHO clinical stage was at the first presentation.

If the client has a history of previous TB
- Tick the Yes box
- Write down the date when TB treatment was started
- Write down the date when TB treatment was completed.

If the client does not have a previous history of TB, tick the No box
- Ask the client about symptoms of TB (cough, fever, weight loss), if present tick the symptom that patient reports and refer for TB services.
- Document information about the tuberculin skin tes (TST):
  - Write down the date when the TST was placed
  - Write down the date when the TST reading was done
  - Write down the size of the induration.
- If the client is eligible for CPT tick the Yes box and if not then tick the No box
- If the client is eligible for IPT, tick the Yes box and if not tick then the No box
- If the client is eligible for ART, tick the Yes ox and if not then tick the No box.

Section 2

4. Graphs
   - On the CD4 count graph, plot the most recent CD4 count by placing a dot (•) on or nearest the line representing the CD4 count value. Write the CD4 count next to the dot.
   - On the weight graph, allocate the lines values in kilograms at 5 kg intervals. (For example, if the client weighs 56kg when the card is issued, allocate the middle line of the graph to the nearest mass in multiples of 5 (ie. 55kg). Allocate numbers to the rest of the lines appropriately. In this case the graph will range from 45kg to 75kg. Plot the client's mass by placing a dot (•) on or nearest the line representing the client's mass.
5. Treatment
   - Write down the treatment that the client is taking including the doses (IPT, CPT and ART).
6. Side effects
   - Write down any side effects that the patient has reported.

Section 3

7. Co-morbidities
   - Write down any other medical condition that the client may have, such as; opportunistic infections, hypertension, diabetes, TB, arthritis and asthma.
8. Other clinics attended
   - Write down the name of other clinics that the client may be attending or used to attend in the past
   - Write down the period of time that the client spent at the other clnic.
9. Appointment dates
   - Write down the date of the next appointment.

section

C

Procedures required for TB/HIV integration

1

1 Health counselling

Health counselling

1a Information, education and pre- and post-test counselling for HIV testing

Aim of the intervention: To provide the client with information regarding the natural history of untreated HIV to allow them to make an informed decision regarding whether to test or not, and then to provide pre- and post-test counselling. All of this should take place in a language which the client understands.

Who should have this intervention? All clients who request or agree to be tested for HIV.

Who may perform the intervention? Lay counsellors, professional counsellors, doctors, nurses and social workers should beable to present information regarding the natural history of untreated HIV infection.

Material required to perform the intervention:

Clinical procedures	Investigations/testing	Documentation
• A quiet (private) area for consultation.	• Visual aid material to explain the natural history of HIV (*Job Card 1*) • Counselling Check List.	• TB/HIV Services Register (*See Section B2*) • Patient's Clinic Visit Record (only required if HIV positive; *See Section B4*) • Patient's Health Passport (Only required if HIV positive; *See Section B5*)

How to perform counselling: (Refer to *Job Cards 1 and 2*, and Counselling Check List below):

- Information and education about HIV and AIDS should be provided to the client before asking if the client is willing to have a HIV test. (Refer to Job Card 1: Counselling aid to explain the natural history of untreated HIV infection).
- The client should be offered an HIV test
- The client should receive pre-test counselling (Refer to the Job Card 2 below)
- The client's blood should be tested for HIV by finger-prick and performance of rapid test kits (Refer to Section C2)
- Once results of the test are available, the client should receive post-test counselling (Refer to the Job Card 2 below)

Action following counseling of client:

Continue with the Roadmap

Completion of registers, clinic notes and/or patient retained records

Registers

- Record the following information in the TB/HIV Services Register pertaining to HIV diagnosis:
  - Pre-test counselling (date given)
  - Date of HIV test (dd/mm/yy) / Known Positive
  - HIV result (P / N / Indeterminate / Refused / KP)
  - If HIV testing was offered but client refused, indicate this in the section 'HIV result'

Patient Registration Form or Clinic Visit Record (pink cards) and Health Passport (yellow card)

- Wait for the result of the HIV test before completing these tools, as clients who are HIV-negative do not require them.

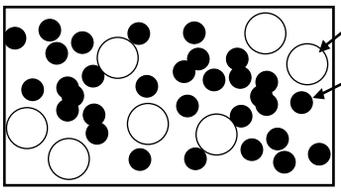
References

- RHRU HIV management cluster. Counselors guide for Voluntary Counseling and Testing. 2006.

1b Job card 1. Counselling aid to explain the natural history of untreated HIV infection and the action of antiretroviral drugs

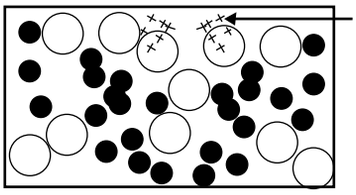
Note to Health Care Worker: Adapt your explanation according to client's level of understanding

①



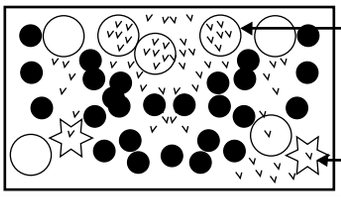
- In the blood, there are different types of cells
- Each type of cell has its own special job
- The red cells have the job of taking air (oxygen) to the muscles so they can work
- The white cells (CD4 cells) have the job of fighting germs

②



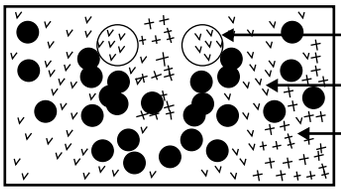
- When germs get into the body, they enter the blood
- The CD4 cells get close to the germs and send out poison to kill them
- A person gets sick, but their CD4 cells help them to get better

③



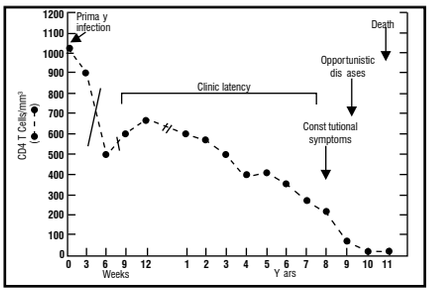
- When HIV gets into the blood, it enters the CD4 cells
- It turns the CD4 cells into a factory to make more HIV virus
- Then the CD4 cells burst and die
- HIV takes many years to kill the body's CD4 cells

④



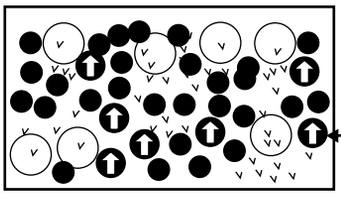
- When there are less than 200 CD4 cells in the body, the body is too weak to fight infection
- When germs enter this weak body, they grow and grow. There are no CD4 cells to kill the germs
- The person gets ill and can sometimes die

⑤



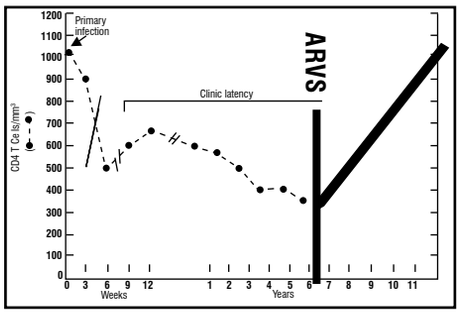
- This graph shows what happens to the number of CD4 cells in the body when a person is infected with HIV
- The vertical axis (height of the graph) shows the number of cells
- The horizontal axis (the length of the graph) shows what happens when time passes
- Before HIV infection a person has around 1000 CD4 cells
- Slowly the CD4 count drops
- When the CD4 count is less than 200, infections occur and the person may die

⑥



- ARV drugs kill the HIV in the blood
- When the body makes more CD4 cells, they will not be infected with HIV, and they can fight germs
- The ARV drugs allow the CD4 cell count to rise above 200
- Then the body is strong to fight germs again
- The HIV infection will never go away, but a person can live with it as long as they take their ARVs properly.

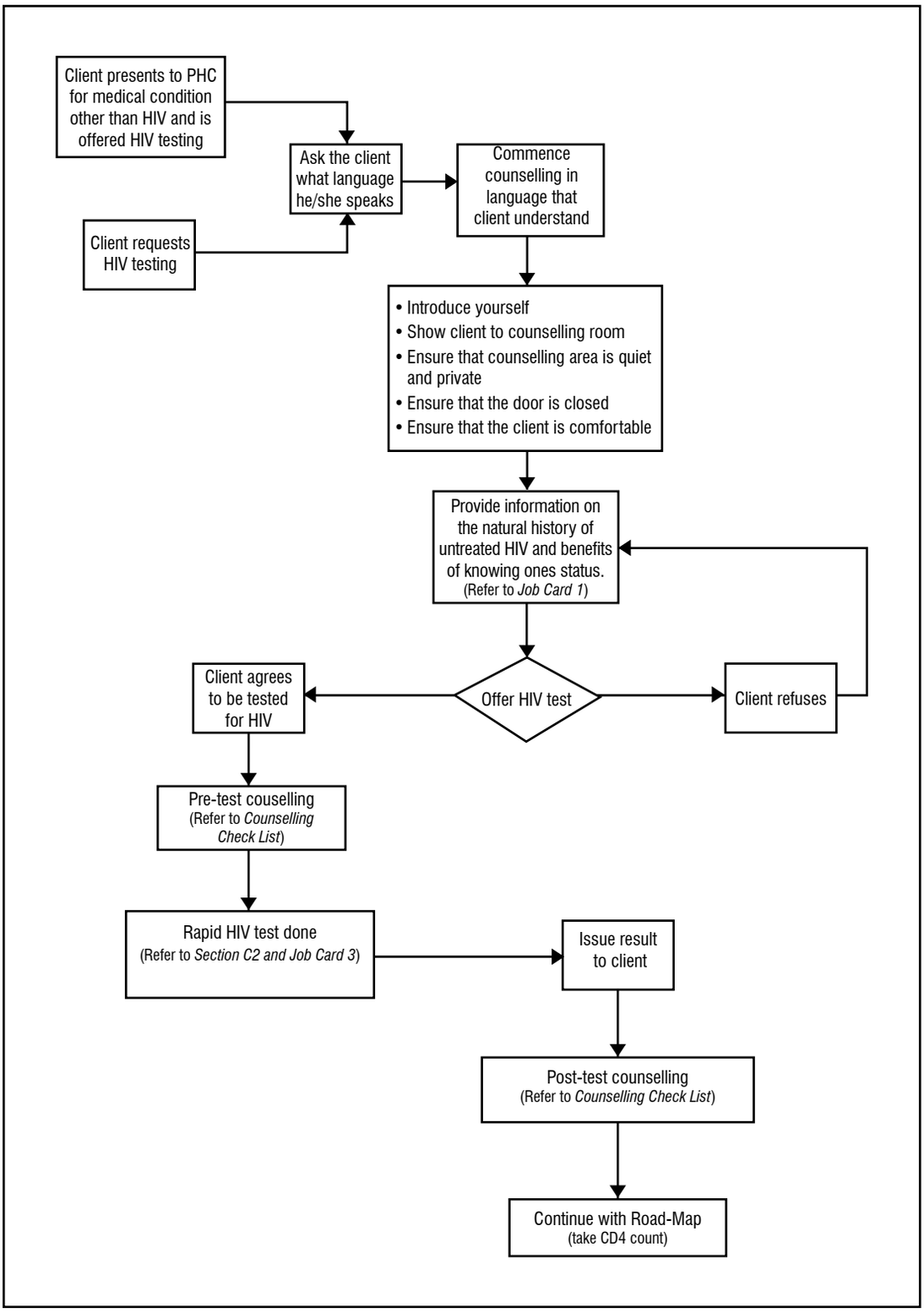
⑦



- HIV is no longer a disease that kills, but a chronic disease that a person can live with; much like high blood pressure – without medicine it can kill you, but with medicine, you can live a healthy and normal life

Testing for HIV, and monitoring your stage of HIV infection means that you can prevent yourself from getting ill!

1c Job card 2. Provider initiated testing and counselling



1d Counselling Check List

Part 1: Information and education

Introduce yourself, explain your role and the testing process.

Provide key information on HIV/AIDS (use Job-Card 1)

- HIV is a virus that destroys the white cells (CD4 cells) in the body ☐
- Once the cells are destroyed the body is unable to fight infections ☐
- HIV is transmitted through:
  - Exchange of infected body fluids during intercourse ☐
  - Using needles that are infected with the virus (eg.drug users/HCW who have a needle stick injury) ☐
  - Transmission of virus from mother to child during pregnancy/labour and delivery/breastfeeding ☐
  - Infected blood products (eg blood transfusion) but this is now rare as test all donated blood for infections ☐

Review clients knowledge of

- Condom use ☐
- Sexually transmitted infections ☐
- The association of TB and HIV ☐

Fill in the gaps where the client's knowledge is limited

Motivation for testing and risk reduction

- Explore reasons for HIV testing ☐
- Discuss client's sexual behaviour and discuss risk reduction options ☐
- Present the advantages and disadvantages of HIV testing ☐
- Explain the window period and its impact on results ☐
- Check the client's understanding of the above ☐

Part 2: Pre-test counselling

Explain how the rapid HIV test is done

- It is a simple blood test that is done by pricking the finger, results available in 20 minutes ☐
- What the test measures and its accuracy ☐
- If the test is positive, a blood test for a CD4 count will be done to stage the infection ☐
- If the test is negative or the result cannot be interpreted, the test may need to be repeated ☐
- If the test is negative but the client has a history of recent risk factors or HIV-exposure , the client may be in the window period and repeat testing in 6-12 weeks is advised ☐

Address the issue of confidentiality/support system

- Inform the client that the results will only be made known to them and the medical team providing treatment ☐
- Discuss feelings about possible results ☐
- Discuss consequences of a positive or negative result ☐
- Ask the client about their support structures and offer ongoing support as a counsellor ☐
- Discuss and identify possible supportive people ☐
- Discuss disclosure and offer to assist with disclosure ☐
- Discuss referral, wellness and support options ☐

Seek informed consent

Part 3: Post test counselling

Re-introdue yourself, and confirm that the client is ready to receive HIV test result

Test results positive

- Gently inform the client of their status ☐
- Ensure that the patient understands what a positive result means ☐
- Affirm the courage of the client to have tested, and re-inforce the advantages of knowing their status ☐
- Identify and discuss people who can offer support ☐
- Advise the patient regarding medical issues including
  - The need for a CD4 count ☐
  - The role of ARVs in managing HIV infection ☐
  - Referral options for maintaining wellness ☐
- Discuss disclosure and the need for the use of methods to prevent transmission ☐
- Arrange a follow-up visit ☐

Test result negative

- Gently inform client of their result ☐
- Ensure that the patient understands what a positive result means ☐
- Affirm the courage of the client to have tested, and re-inforce the advantages of knowing their status ☐
- Explain the validity of the result if the client has engaged in high risk behaviour in the last 6 months ☐
- Explain the need to repeat the test if client is in window period ☐
- Provide information on how to prevent HIV infection ☐

2

2 Rapid HIV Testing

Rapid HIV Testing

2a How to perform point of care testing for HIV infection

Aim of the test: To determine whether a client is infected with HIV

Who should have this test? Any client who requests an HIV test; all clients to whom the PHC service has offered HIV testing. HIV testing should only be done after pre-test information and education, and pre-test counselling has been provided (see Section C1)

Who may perform this test? A nurses or doctor. In South Africa, counsellors may not perform this test

Material required to perform the test:

Clinical procedures	Investigations/testing	Documentation
• A quiet (private) area for consultation • Alcohol swab to clean client's skin • Sterile lancet for pricking the finger • Sterile needles and syringes to take blood samples if required • Red or yellow top blood tubes for ELISA HIV test if required • Purple top (EDTA) blood tubes for CD4 counts and viral loads	• HIV test kits for rapid HIV testing from 2 different manufacturers. These include the 'buffers' or drops required for test performance.	• Package insert containing instructions for test performance from box of HIV tests • Patient's Clinic Visit Record (*Section B4*) • Patient's Health Passport (*Section B5*) • Clinic TB/HIV Services Register (*Section B2*)

How to perform the rapid HIV test: Testing algorithm to be followed:

Perform two rapid tests (from different manufacturers) at the same time, with blood obtained from a single fingerprick

Interpret the results of both tests and proceed with patient management as described in Job Card 3.

How to perform the rapid HIV test: Kit-specific instructions:

- Review the package insert of the kit to ensure that you are familiar with the specific instructions for performing, reading and interpreting the kit
- Prepare the client by explaining the procedure and that the result of the rapid test will be available in 20 minutes
- Put on a clean set of gloves
- Clean the clients finger with an alcohol swab and allow to dry
- Prick the finger with a sterile lancet
- Dispose the lancet in a biohazardous waste container
- Squeeze the finger to ensure that a large drop of blood forms
- Collect blood sample as it lies on the surface of the skin with pipette or sample loop provided, depending on the kit that is used
- Place sample of blood into the test-well of the kit as per instructions
- Some kits require that a drop or two of buffer be placed on top of the blood in the test-well
- Await the result (waiting time is approximately 20 minutes) and interpret as described below. Interpreting the TST.

Interpretation of the results: Kit specific instructions

Refer to kit-specific instructions on interpretation of test result. General instructions follow below. Some kits are able to differentiate HIV-1 and HIV-2 infection by detection of specific antibodies to each viral subtype while other test kits do not.

Interpretation of result from kits that differentiate between HIV-1 and HIV-2 infection (refer to Figure 1 below)

- Interpretation of markings on test: C =control; T1 = HIV-1; T2 = HIV-2
- The result can be read after 20 minutes
- Invalid result: No line appears at C. The control on the test has failed and the test should be repeated.
- HIV negative: A line at C with no line at T1 or T2 indicates that the client is HIV negative
- HIV positive (HIV-1 infection): A line at C and T1
- HIV positive (HIV-2 infection): A line at C and T2
- HIV positive (HIV-1 and HIV-2): A line at C, T1 and T2 .

Kits that do not differentiate HIV-1 and HIV-2 infection (refer to Figure 2 below)

- Interpretation of markings on test: "Control" = test control; "Patient" = result for patient.
- The result can be read after 20 minutes.
- Invalid result: No line appears at "Control", The test is invalid and should be repeated.
- HIV negative: A line at "Control" with no line at "Patient"
- HIV positive: A line at "Control" and at "Patient"

Background: The window period

If the HIV test is done very soon (days to 2 weeks) after the person acquired HIV infection, it is possible that the result of the rapid test will be falsely negative. This is referred to as the window period:

- It is the period from the time of exposure and infection to the development of detectable antibodies to HIV
- The development of enhanced ELISA assays (4th generation) that detect both HIV antibodies and antigens have led to great reductions in the window period and earlier detection of HIV seroconversion
- Most people develop antibodies within 2 to 8 weeks from the time of infection
- 99% will have antibodies in the first 3 months after infection
- It is extremely rare that individuals will take longer than 3 months to develop antibodies

Action following HIV testing and interpretation of results:

1. If HIV status is positive:
   - Refer client for post test counselling (see Counselling check sheet and Job Card 2)
   - Continue with HIV Roadmap (Take blood for CD4 count, and give client return date to collect result)
2. If HIV status is negative:
   - Refer for post test-counselling (see Counselling Check List and Job Card 2)
   - If client has history of recent high risk behaviour, request the client to return for a second test in 6 weeks. Councel the client about the window period and the importance of having protected sex.
3. If rapid test results are discordant (one rapid test positive, the second rapid test negative) or controls of rapid test failed:
   - Take blood in red or yellow top (serum separator) tube for ELISA testing in a laboratory
   - Give client a return date to collect blood results.

Completion of registers, clinic notes and/or patient retained records

- Registers
  - Record the following information in the TB/HIV Services Register pertaining to HIV diagnosis:
    - Pre-test counselling (date given)
    - Date of HIV test (dd/mm/yy / Known Positive)
    - HIV result (P / N / Indeterminate / Refused / KP)
- Patient Registration Form (pink card)
  - Only if the client is HIV positive, complete the Patient Registration Form (pink card).
- Health Passport (yellow card) and/or appointment card
  - Only if the client is HIV positive, offer the client a yellow card and proceed with the HIV Roadmap.

References

- World Health Organization. Rapid HIV tests: guidelines for use in HIV testing and counselling
- services in resource-constrained settings. 2004
- Acute Care Manual. WHO HIV Department – IMAI project. Integrated Management of Adolescent and adult Illness. Acute Care module, Interim guidelines for first-level facility health workers at Health Centre and district outpatient clinic. WHO/CDS/IMAI/2004.1 Version 2. 2005.

Figure 1: Rapid HIV test that differentiates between HIV-1 and HIV-2 antibodies

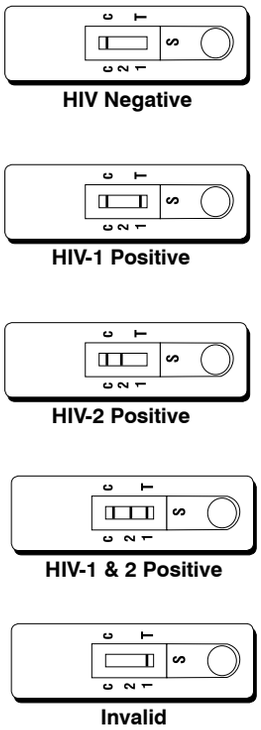
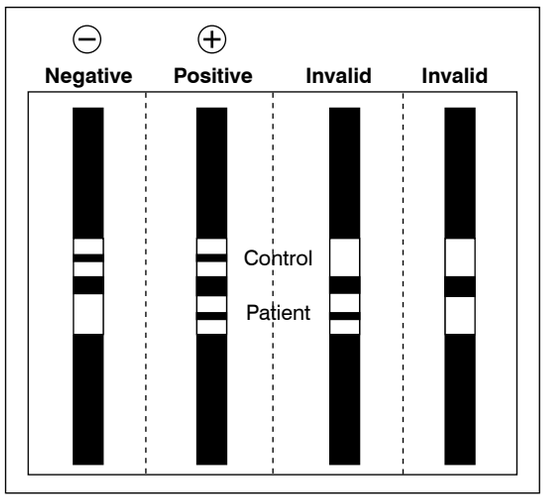
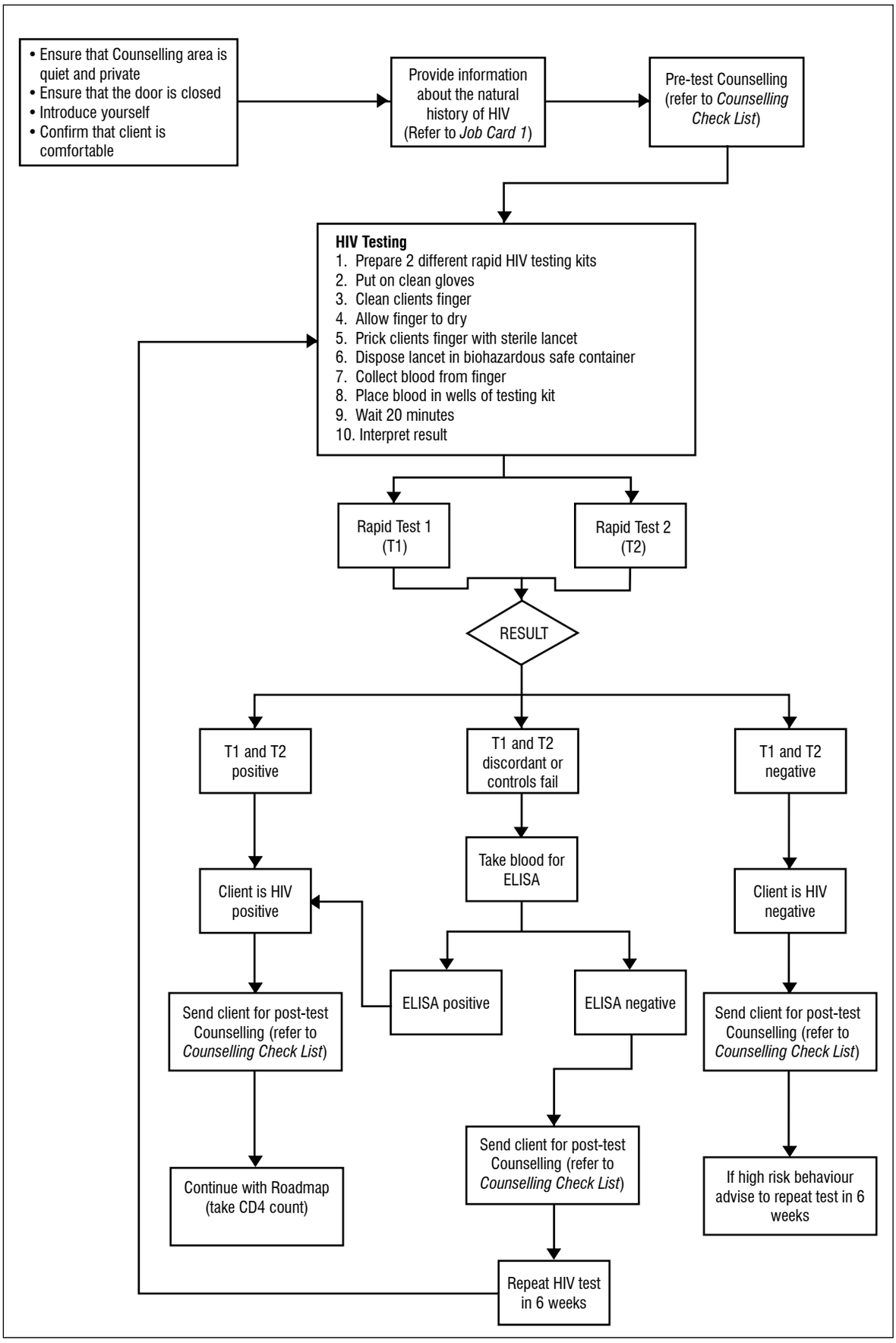


Figure 2: Rapid HIV test that does not differentiate between HIV-1 and HIV-2 antibodies



2b Job Card 3. Rapid HIV testing



3

section 3

3 Screening for active tuberculosis (TB disease)

Screening for active tuberculosis

3a Procedure for screening for active tuberculosis

Background

- All people in South Africa are at risk of developing tuberculosis (TB)
- TB can be successfully treated
- If a HIV patient has TB, treatment should be started before HIV treatment in order to reduce the possibility of complications and drug side-effects
- If a HIV patient has active TB or symptoms of TB, they are not eligible for INH prophylaxis.

Aim of the intervention: To identify clients who may have tuberculosis ('TB suspects') so that screening tests (including TB microscopy) may be performed.

Who should have this intervention done? All clients presenting at primary health care clinics especially:

- All HIV positive clients who are being evaluated for eligibility for INH prophylaxis
- All HIV positive clients who are being evaluated for starting antiretroviral therapy

Who may perform the intervention? A nurse or doctor. A counselor may screen the patient for symptoms of TB.

Material required to do the intervention:

Clinical procedures	Investigations	Documentation
• A quiet (private) area for consultation	• None	• Patient's Clinic Visit Record (*Section B4*) • Patient's Health Passport (*Section B5*) • Clinic TB Suspect Register • Clinic TB/HIV Services Register (*Section B2*)

How to screen for TB disease:

Ask the client for the presence of symptoms associated with a diagnosis of TB. Use the Job Card 4 below. These symptoms are:

- Fever or night sweats
- Unintentional loss of weight
- Cough for more than 2 weeks duration.

Interpretation of the results:

- If any symptoms are present, the client becomes a 'TB Suspect'.
- If no symptoms are present, the client is not a 'TB Suspect' at this present time

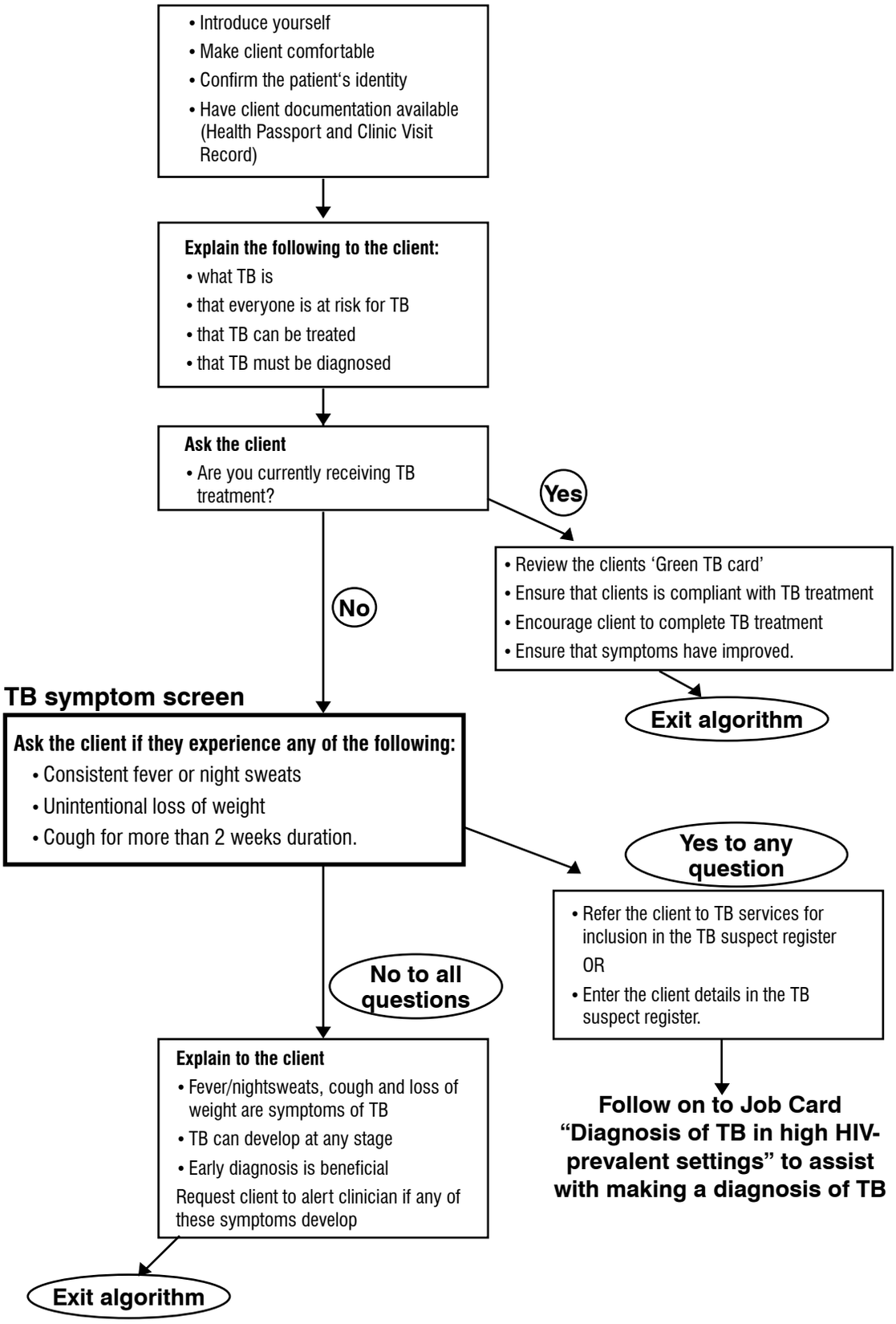
Action following TB symptom screening:

- If the client is a 'TB Suspect' refer to clinic TB services for investigation of TB, then continue with the Roadmap
- If the client is not a TB Suspect, advise the client to report to their clinician should these symptoms appear at any stage, then continue with the Roadmap.

References and resources for more information

- Acute Care Manual. WHO HIV Department – IMAI project. Integrated Management of Adolescent and adult Illness. Acute Care module, Interim guidelines for First-level facility health workers at Health centre and district outpatient clinic. WHO/CDS/IMAI/2004.1 Version 2. WHO 2005

3b Job card 4. Algorithm for screening for tuberculosis



4

section 4

4 Diagnosis of pulmonary TB in high HIV prevalent settings

section 4

Diagnosis of pulmonary TB in high HIV prevalent settings

4a Procedures and investigation for the diagnosis of TB in high HIV-seroprevalent settings

Aim of intervention: To guide TB and PHC nurses in the diagnosis of pulmonary TB at PHC level including:

- when to refer clients for further investigation
- how to approach the diagnosis of smear-negative pulmonary TB.

Who should have this intervention? Any client who has symptoms of pulmonary TB (cough >2 weeks, night sweats, loss of weight)

Who may perform the intervention? A nurse and doctor.

Material required to perform the intervention:

Clinical procedures	Investigations	Documentation
• A quiet (private) area for consultation • HIV testing as described previously.	• Sputum pots for collection of sputum • Facilities (or referral to facility) for chest X-ray • Laboratory Services for the diagnosis of TB • Chest X-ray.	• Patient's Clinic Visit Record (*Section B4*) • Patient's Health Passport (*Section B5*) • Clinic TB treatment • Clinic TB/HIV Services Register (*Section B2*).

How to make the diagnosis of pulmonary TB:

- Job Card 1 describes the procedure for collection of an adequate sputum specimen
- Job Card 2 presents an algorithm describing the interpretation and action that should follow after results of sputum smears are available and HIV testing has been offered (and done).

Case definitions of pulmonary TB: A client has pulmonary TB if the investigations yield the following:

- AFB seen on microscopy
  - 1 positive sputum is required if symptoms are present
  - 2 positive sputa are required if no symptoms present.
- Sputum culture - growth of Mycobacterium tuberculosis
- Symptoms suggestive of TB AND changes on chest X-ray suggestive of TB, including the following (see Job Card 7 below on identification of a normal chest X-ray)
  - Pulmonary infiltrates, interstitial/milliary disease, cavitations and fibrosis

When and how to investigate patients with suspected TB (refer to *Job Card 5*):

- All patients who are TB suspects (fever, cough> 2 weeks, night sweats) should have sputum taken for TB microscopy and should be offered an HIV test. Knowing the HIV status of the client will assist the health care worker to interpret the results of the sputum investigations and chest X-rays
- Culture of sputum for TB is indicated in the following circumstances
  - TB suspects who have two negative smears, and have not responded to a course of antibiotics.
  - History of previous unsuccessful TB treatment (interruption, failure, relapse).
  - Where drug susceptibility testing is necessary.
  - Patients who remain positive at the end of the intensive phase of treatment and or at the end of the treatment period.
- Chest X-ray is indicated in the following circumstances
  - When the sputum results are negative and TB is suspected.
  - When the sputum results are positive and complications are present (but this patient should be referred to a regional health centre)

When to refer TB suspects for further investigations:

- The following TB suspects should be referred to the next level of health care (regional hospital) for investigation and possibly admission:
  - Patients who are unable to look after themselves and have limited family support

- Patients who are wasted, severely weak or incapacitated
- Patients who are severely short of breath (respiratory rate >40 breaths per minute)
- Patients who are confused or disorientated (who do not know the time of day, the place where they are, or who the person is who is helping them ('a nurse')).

How to collect sputum for TB microscopy or culture (refer to *Job Card 5*):

- Give clear instructions to the patient. Demonstrate the procedure to the patient and be sure they understand. The health care worker may supervise the procedure, but should not stand in front of the patient.
- The health care worker should provide the client with the sputum collection vial (usually supplied by the laboratory) and a correctly labelled laboratory request form.
- Specimens taken first thing in the morning produce a better yield than specimens that are taken on the spot.
- According to the National TB Control Programme, two specimens should be taken:
  - One spot specimen when patient first presents to PHC
  - One early morning specimen (preferably the next day)

Instructions for specimen collection suggested in the 2004 TB guidelines (refer below) include the following:(photocopy Job Card 5 and hand to patient with sputum pot)

1. Advise the person to stand in a well ventilated area or outside, but in private and without others watching.
2. The person must rinse out their mouth with water.
3. The person should breathe in deeply, hold the breath for 5 seconds, and then breathe out completely. The person should then cough deeply from the bottom of the chest, and bring up sputum into the back of their throat.
4. Ask the patient to be very careful and spit the sputum into the container so as not to contaminate the outside.
5. The patient should replace the lid on the container immediately and make sure the lid is securely closed by pressing down on the centre of the lid down until a click is heard.
6. The person must wash their hands after handling the sputum specimen.

Action following a diagnosis of TB:

TB treatment should be given according to prescribed practices of the South African National TB Control Programme.

Completion of registers, clinic notes and/or patient retained records

Registers

- Record the following information in the TB/HIV Services Register pertaining to TB diagnosis and screening:
  - TB symptoms (Present / absent / On TB Rx)
  - Referred to TB services (yes (date) / No / On TB Rx)
  - TB treatment commenced (Y(date)/N)
- Complete TB documentation according to the South African National TB Control Programme (TB suspect register and TB treatment register).

Clinic Visit Record (pink card)

- Record that TB was diagnosed, and the date the treatment was commenced
- Record the results of sputum microscopy in the clinic notes
- Complete TB documentation according to the South African National TB Control Programme (blue card).

Health Passport (yellow card)

- Record that TB was diagnosed, and the date that treatment was commenced on the card.
- Complete TB documentation according to the South African National TB Control Programme (green card).

References:

- National Department of Health. The South African National TB Control Programme. Practical guidelines 2004
- WHO Stop TB department. Improving the diagnosis and treatment of smear-negative pulmonary and extrapulmonary tuberculosis among adults and adolescents: Recommendations for HIV-prevalent and resource-constrained settings. Document reference: WHO/HTM/TB/2007.379. WHO 2007
- Acute Care Manual. WHO HIV Department – IMAI project. Integrated Management of Adolescent and adult Illness. Acute Care module, Interim guidelines for First-level facility health workers at Health centre and district outpatient clinic. WHO/CDS/IMAI/2004.1 Version 2. WHO 2005.

4b Job Card 5. Collection of sputum for TB investigations

Instructions for Collecting Sputum for TB

Integrated TB/HIV services

Instructions for Collecting Sputum for TB

Why is a sputum test necessary?

Tuberculosis is a very common but treatable sickness of the lungs. When a person has TB, the TB germ can be found in their sputum. Checking your sputum is the best way to find out if you have TB disease.

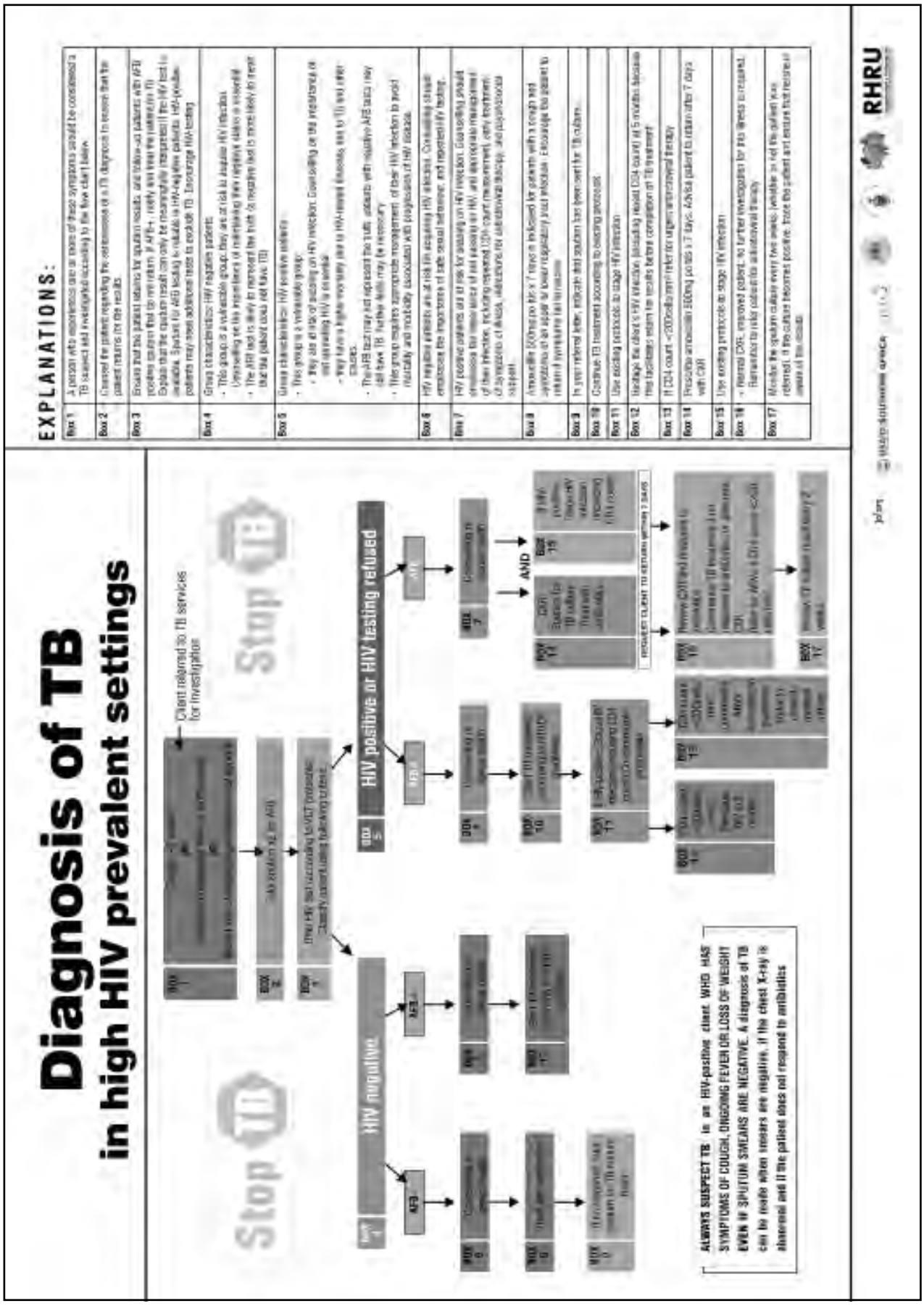
To ensure that your test is accurate, you must cough up sputum from deep inside your lungs. Sputum from your lungs is usually thick and sticky. Saliva comes from your mouth and is watery and thin. Do not collect saliva.

How to collect a sputum sample

Your nurse will give you a special plastic cup for collecting your sputum. Follow these steps very carefully"

The cup is very clean. Don't open it until you are ready to use it.	
As soon as you wake up in the morning (before you eat or drink anything), brush your teeth and rinse your mouth with water. Do not use mouthwash.	
If possible, go outside, or open a window before collecting the sputum sample. This helps protect other people from TB germs when you cough. Take a very deep breath and hold the air for 5 seconds. Slowly breathe out. Take another deep breath and cough hard until some sputum comes up into your mouth.	
Spit the sputum into the plastic cup. Keep doing this until you have about 1 teaspoon of sputum.	
Screw the lid on the cup tightly so it doesn't leak. Wash and dry the outside of the cup. Put the cup into the bag the nurse gave you. Return the cup to the clinic on the same day that you coughed into it.	
Tips: If you cannot cough up sputum, try breathing steam from a hot shower or pan of boiling water first, and then cough.	**Contact details of PHC:** **Clinic name** _____ **Facility manager** _____ **Clinic telephone number** _____

4c Job Card 6. Diagnosis of TB in high HIV prevalent settings



4d Job Card 7. Basic interpretation of a Chest X-ray

How to read a chest X-ray

A chest X-ray should always be interpreted by someone who has been trained to do so. These pictures are merely guides to assist with recognition of two common patterns seen on CXR that are seen in patients with pulmonary TB.

Step 1: Hold the CXR up against a light background

Step 2: Make sure that the left side of the persons chest as portrayed in the chest X-ray (as indicated by the "L" on the X-ray plate) is on the right as you look at the X-ray (as seen in the picture below)

Step 3: Look at the structures of the patient as shown in the CXR, specifically

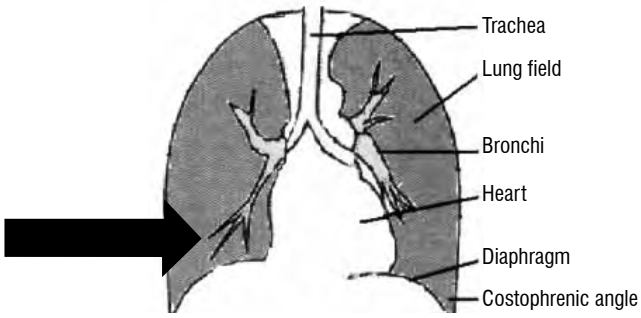
- The lung fields
- The 'costophrenic angle'

Step 4: 'Nodules' or little white dots that are found all over the lung fields are suggestive of miliary tuberculosis as seen in the image below. 'Nodules' or dots that are found in a specific area only could mean the presence of pneumonia

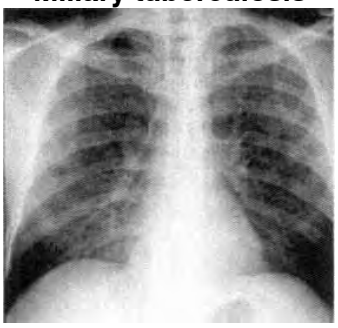
Step 5: Blunting of the costophrenic angle (a shadow that makes the costophrenic angle rounded, or white and obscured) indicates that fluid is present in the pleura, and means that an effusion is present.

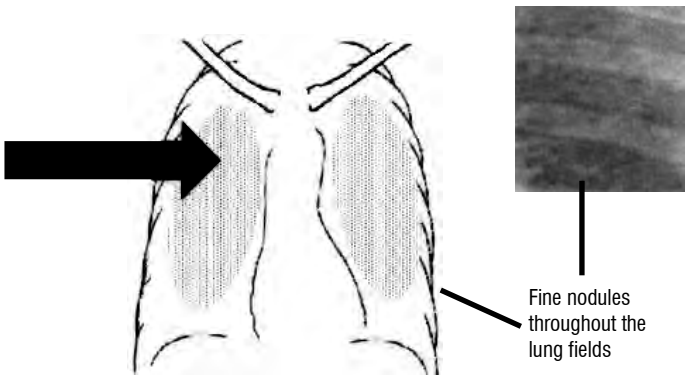
Normal Chest X ray

Interpretation

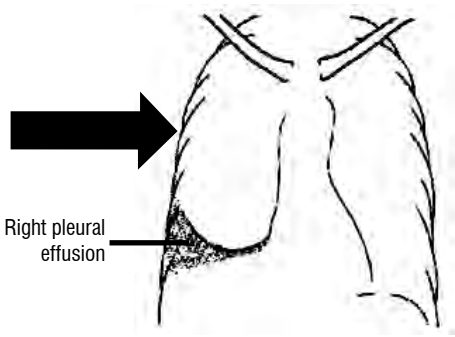


Miliary tuberculosis





Pleural effusion



5

section 5

5 CD4 Count Testing

CD4 count testing

5a Performing a CD4 count

Aim of determining the CD4 count: To assess the stage and prognosis of HIV infection, and to facilitate identification of clients who will benefit from and are eligible for co-trimoxazole prophylaxis, INH preventive therapy and antiretroviral therapy.

Who should have this intervention?

- All newly diagnosed HIV positive clients
- All known HIV-positive clients should have a CD4 count every 6 months, unless there are other indications for determining the CD4 count

Who may perform the procedure?

- Venepuncture may be performed by a nurse or doctor.
- Interpretation of the CD4 count result may be done by a trained lay counsellor, nurseor doctor.

Material required to perform the test:

Clinical procedures	Investigations/testing	Documentation
• A quiet (private) area for consultation • Alcohol swab for cleaning of injection site • Tourniquet for venesection.	• EDTA blood tubes (purple top) • Sterile needles • Syringes.	• Laboratory specimen request form • Patient's Clinic Visit Record (*Section B4*) • Patient's Health Passport (*Section B5*) • Clinic TB treatment • Clinic TB/HIV Services Register (*Section B2*).

How to perform a CD4 test:

- Ensure the client understands what the CD4 count means. (Refer to Job Card 1: Counselling aid to explain the natural history of untreated HIV infection).
- Explain that the CD4 count test is done in a laboratory and that the client must return for the result.
- Perform venepuncture according to standard techniques (including cleaning of skin at venepuncture site before hand, correct labelling of tubes and laboratory request forms)
- Give the client a date to return to fetch the results.

Emphasise to the client that it is ESSENTIAL to return for the results

Interpretation of the CD4 test result:

In individuals with and without HIV infection, the CD4 count changes hourly and daily, but within a short time period (1 day-1week) the result should not vary by more than 20-30 cells/µL. Therefore the cutoff points are a general guide and should be applied with flexibility.

Generally, the lower the CD4 count, the more immunosuppressed the client is. Refer to the table below.

Not immunosuppressed	> 500/µL
Mild immunosuppression	350-499/µL
Advanced immunosuppression	200-349/µL
Severe immunosuppression	<200/µL

Action following interpretation of CD4 test:

The CD4 count and the client's stage of infection together assist the health care worker to determine eligibility for co-trimoxazole prophylaxis, and antiretroviral therapy. (Refer to Section 9: Co-trimoxazole prophylaxis and antiretroviral therapy)

Completion of registers, clinic notes and/or patient retained records

Registers

- Record the following information pertaining to CD4 count testing in the PITC register in the "Staging of HIV disease" section.
  - CD4 taken (Yes / No / Not required as done within past 3 months)
  - CD4 lab reference number (stick the reference number from the lab request form in this column)
  - Date CD4 taken (dd/mm/yy)
  - CD4 result (Cells/mm3)
  - CD4 result collected (Yes (date) / no)
- Clinic Visit Record (pink card)
  - Record the date that the CD4 count was taken in the clinic notes.
  - Record the CD4 result and place a hard copy of the CD4 count in the clinic notes
- Health Passport (yellow card) and/or appointment card
  - Record the CD4 count in the health passport in the baseline assessment or in the graph section

6

section 6

6 Staging of HIV infection

section 6

Staging of HIV testing

6a How to determine the client's stage of HIV infection

Background

Staging of HIV infection allows the health care provider to:

- provide or refer for services that are appropriate for the stage of HIV infection
- counsel the patient regarding how best to look after themselves.

This staging algorithm is intended for use at primary health care level and enables only a provisional assessment to be made:

- Certain diagnoses that are WHO stage 4 (AIDS-defining) or WHO stage 3 require evaluation and investigation by a doctor
- Where the client gives a good history, or a diagnosis is available from hospital records or discharge summaries, the primary health care provider can incorporate this information into the algorithm to assist with determining the stage.

Aim of the intervention: To ascertain the provisional stage of HIV infection in a client who is HIV positive

Who should have this intervention? All clients who have a positive HIV test

Who may perform the intervention? A nurse or doctor who has been trained in HIV management may perform the staging.

Material required to perform the test:

Clinical procedures	Investigations/testing	Documentation
• A quiet (private) area for consultation • A torch or good light source to look in the mouth • Thermometer.		• Staging Check List • Patient's Clinic Visit Record (*Section B4*) • Patient's Health Passport (*Section B5*) • Clinic TB treatment • Clinic TB/HIV Services Register (*Section B2*).

How to perform the staging:

1. Prepare the client:
   a. Explain the natural history of untreated HIV infection using Job Card 1
   b. Explain that ascertainment of the stage of HIV infection will help the health care worker and the client to identify what services the client needs and to manage their disease properly.
2. Ask the client the following questions:
   a. Questions related to demographics and general health:
      i. Are you working? If not why not (did you stop working as a consequence of ill health?). Are you able to perform activities of daily living or are you confined to bed?
      ii. Are your children and partner/s well (do they have or did they have any HIV-related illnesses)
   b. Questions related to previous admissions:
      i. Have you ever been admitted to hospital? If yes, what was the diagnosis?
      ii. Do you have a discharge summary or other documentation available from the admission
   c. Questions relating to past medical history:
      i. Have you noticed any swollen lymph nodes (glands) in your body?
      ii. Have you had or do you have any skin problems such as itchiness, dry skin, rashes, little pimples
      iii. Have you experienced recurrent upper respiratory infections, such as sinusitis or otitis?
      iv. Have you ever had herpes infection of the genitals (little blisters that burst and turn into ulcers)
      v. Have you lost weight? If yes, how much? How much did you weigh before?
      vi. Have you ever been treated for TB? If yes, what kind of TB (pulmonary TB or extra-pulmonary TB)
      vii. Have you ever had:-
         - pneumonia,
         - diarrhea for >1month,
         - oral thrush,
         - bleeding gums and loose teeth
         - fever and sweating for >1 month
         - meningitis (if yes, was it 'cryptococcal meningitis')
         - confusion or memory loss
         - new problems with vision (difficulty in seeing)

3. Examine the client
   a. Measure weight
   b. Look at the skin of the body, face, arms and hands. Refer to Job Card 8 to assist with identification of minor HIV-related illnesses
      i. Look for evidence of old zoster scarring (shingles)
      ii. Look for evidence of folliculitis (little pimples in hair follicles)
      iii. Look for evidence of seborroheic dermatitis (dry scaling skin, and evidence of itching)
      iv. Look for evidence of fungal nail infections.
   c. Look in the mouth with a torch
      i. Look for oral thrush (white patches on tongue, buccal cavity)
      ii. Look for cracks in the angles of the mouth (angular cheilitis)
      iii. Look for infection around the gums (red, inflamed gum margin)
      d. Feel for lymph nodes in neck, axillae, groin.
4. Using the findings above, complete the staging checklist below and ascertain the provisional HIV stage.

Action following staging of HIV infection:

- Inform the client of their provisional stage of HIV infection
- Advise the client on symptoms of their stage and the next stage (e.g. if in Stage 1 advise client on symptoms of Stage 1 and Stage 2)
- Counsel client on strategies to prevent transmission of HIV
- Counsel client on healthy lifestyle (nutrition, moderation in smoking and alcohol) in order to preserve health as long as possible
- Take blood for a CD4 count (If not done already)
- Move onto next stage in HIV Roadmap (treatment of minor HIV-related infections identified during staging, and assessment of eligibility for CPT, IPT and ARV).

Completion of registers, clinic notes and/or patient retained records

- Registers
  - Record the stage of HIV infection in the TB/HIV Services Register in the column “WHO stage (1/2/3/4)”
- Patient Registration Form or Clinic Visit Record (pink cards)
  - Record the stage of HIV infection.
- Health Passport (yellow card) and/or appointment card
  - Record the stage of HIV infection in the health passport.

References and resources for more information

- Department of HIV/AIDS, WHO. WHO case definitions of HIV for surveillance and revised clinical staging and immunological classification of HIV-related disease in adults and children. WHO. 2006
- Chronic HIV care with ARV Care and Prevention. WHO HIV Department – IMAI project. Integrated Management of Adolescent and adult Illness. Acute Care module, Interim guidelines for First-level facility health workers at Health centre and district outpatient clinic. WHO/CDS/IMAI/2004.1 Rev. 2. WHO 2006

Client name: _____ **Date of staging:** _____ **PROVISONAL WHO STAGE:** _____

Step 1: Counsel client regarding natural history of HIV infection using: *Job Card 1: Counseling aid to explain the natural history of HIV infection*

Step 2: Ask client the following questions:

2. 1 General Health:

If you are not working, did you stop because of illness? Yes ☐ No ☐
Are you able to perform activities of daily living? Yes ☐ No ☐
Are you confined to bed? Yes ☐ No ☐
Are your children and partner/s well ? Yes ☐ No ☐
If no, do they have or did they have any HIV-related illnesses?
Yes ☐ No ☐ If yes, describe? _____

2.2 Hospitalisations

Have you ever been admitted to hospital? Yes ☐ No ☐
When: _____
Where: _____
If yes, what was the diagnosis? _____

2.3 Questions relating to past medical history

Have you noticed any swollen lymph nodes (glands) in your body? Yes ☐ No ☐
Have you any skin problems such as itchiness, dry skin, rashes, little pimples Yes ☐ No ☐
Have you experienced recurrent sinus or ear infections (colds and flu)? Yes ☐ No ☐
Have you ever had recurrent ulcers in the mouth? Yes ☐ No ☐
Have you ever had herpes infection of the genitals Yes ☐ No ☐
Have you lost weight? If yes, how much? +/-_____kg Yes ☐ No ☐
Is it painful when you swallow? Yes ☐ No ☐
Have you ever been treated for TB? Yes ☐ No ☐
If yes, what kind of TB:
Pulmonary TB Yes ☐ No ☐
Extra-pulmonary TB If Yes, where: _____ Yes ☐ No ☐
Have you ever had any of the following?
Pneumonia Yes ☐ No ☐
Diarrhoea for >1month, Yes ☐ No ☐
Oral thrush (white patches in the mouth), Yes ☐ No ☐
Bleeding gums and loose teeth (gum infection) Yes ☐ No ☐
Fever and sweating for >1 month Yes ☐ No ☐
Meningitis (infection in the brain or head) Yes ☐ No ☐
Confusion or memory loss Yes ☐ No ☐
New difficulty in seeing Yes ☐ No ☐

2.4 Examine the client (*Refer to Job Card 8*)

Measure and record weight _____kg.
(Estimate weight loss as a % of body weight = (number of kg lost / body weight) x 100
Measure and record the oral temperature _____°C
Look at the skin of the body, face, arms and hands
Is there evidence of old zoster scarring (shingles) Yes ☐ No ☐
Is there folliculitis (little pimples in hair follicles) Yes ☐ No ☐
Is there seborrheic dermatitis (dry scaling skin, itching) Yes ☐ No ☐
Are there fungal nail infections Yes ☐ No ☐
Look in the mouth with a torch
Is there oral thrush (white patches on tongue, buccal cavity) Yes ☐ No ☐
Are there cracks in the angles of the mouth (angular cheilitis) Yes ☐ No ☐
Is there infection around the gums Yes ☐ No ☐
Feel for lymph nodes in neck, axillae, groin
Can you feel lymph nodes? Yes ☐ No ☐

Step 3: Assessment of conditions required for WHO staging.
Complete this section using the information on the previous page. Mark 'Present' if the client complains of the symptom/sign **NOW or IN THE PAST**

WHO Clinical stage 1

No symptoms reported and no signs on examination Present ☐
Persistent generalized lymphadenopathy Present ☐

WHO Clinical stage 2

Moderate (<10% body weight) unexplained weight loss Present ☐
Recurrent upper respiratory tract infections Present ☐
Herpes zoster (or evidence of previous herpes zoster/shingles) Present ☐
Angular cheilitis (cracks at corners of mouth) Present ☐
Recurrent oral ulcers Present ☐
Folliculitis (infection of hair follicles) Present ☐
Seborrheoic dermatitis (dry scaly skin) Present ☐
Fungal nail infections Present ☐

WHO Clinical stage 3

Severe (>10% body weight) unexplained weight loss Present ☐
Diarrhoea for longer than one month Present ☐
Unexplained persistent fever >1 month Present ☐
Oral thrush Present ☐
Pulmonary tuberculosis Present ☐
Servere bacterial infection such as pneumonia, meningitis Present ☐
Severe necrotizing gingivitis or periodontitis (gum infection) Present ☐

WHO Clinical stage 4

The following conditions can be assessed at a primary health care level: Refer to questions to the left to determine if these conditions are present

HIV wasting syndrome (Loss of >10% body weight or severe wasting, plus chronic diaarhoea)	Present ☐	Recurrent severe bacterial pneumonia	Present ☐
Chronic herpes simplex virus infection >1 month	Present ☐	Oesophageal candidiasis (if oral thrush + painful swallowing	Present ☐
Extrapulmonary TB	Present ☐		

The following conditions can only be diagnosed at hospital: Refer to clients hospital records or discharge summary (if available) to determine if present

Kaposi sarcoma	Present ☐	HIV encephalopathy	Present ☐
Toxoplasmosis of central nervous system	Present ☐	Extrapulmonary cryptococcosis	Present ☐
Disseminated non-tuberculous myco-bacterial infection (e.g MAC disease)	Present ☐	Progressive multifocal leukoencephalopathy	Present ☐
Chronic cryptosporidiosis	Present ☐	Chronic isosporiasis	Present ☐
Disseminated mycosis	Present ☐	Pneumocystics pneumonia	Present ☐
Cytomegalovirus disease	Present ☐		

Step 4: Determination of provisional stage:

The highest 'WHO Clinical stage' in which a 'present' box is marked is the WHO stage of infection. Write the provisional stage in the place above

7

7 Identification and treatment of minor HIV-related complaints

Identification and treatment of minor HIV-related complaints

7a Minor HIV-related complaints and indications for referral for further investigations

Aim of the intervention: To treat minor HIV-related complaints that are identified during staging of HIV disease (see Job Card 5) and to identify conditions that require referral for treatment. Health care workers are referred to more detailed texts (referenced below) for comprehensive assistance regarding diagnosis and management of HIV-related complaints.

Who should have this intervention? All clients who have a positive HIV test, and who are complaining of symptoms of minor conditions including oral and oesophageal thrush, seborrheic dermatitis, folliculitis, fungal nail infections, vulvo-vaginal thrush, genital herpes, upper respiratory tract infections, peripheral neuropathy, zoster (shingles), diarrhoea

Who may perform the intervention: A nurse or doctor who has been trained in HIV management may diagnose and treat these minor HIV-related complaints.

Material required to do the intervention:

Clinical procedures	Investigations	Documentation
• A quiet (private) area for consultation • A torch or good light source to look in the mouth	• None	• Patient's Clinic Visit Record (Section B4) • Patient's Health Passport (Section B5)

The following drugs are required

Creams	Tablets	
• Topical steroid preparation: • Betamethasone 0.1% (body) • Hydrocortisone 1% (face) • Mupirocin cream (Bactroban) • Nystatin oral solution	• Aciclovir 400mg • Fluconazole 200mg • Griseofulvin 400mg • Amoxil 500mg	• Amitryptiline 25mg • Erythromycin 500mg • Ciprofloxacin 500mg • Metronidazole 400mg

Treatment of minor HIV-related complaints:

- Perform staging of HIV disease using Job Card 5. During this process, the healthcare worker may become aware that the client has minor HIV-related complaints
- Identify the HIV-related complaints using the table on the facing page.
- Counsel the client regarding the condition, including its treatment and prognosis.
- Prescribe appropriate therapy
- Continue on the Roadmap (Assess eligibility for CPT, IPT and ART)

Identification of conditions which require referral to hospital for investigation and treatment

The presence of any of the following require referral to a hospital for investigation and treatment +/- referral to TB clinic for exclusion of TB (refer Job Card 6)

- Unexplained fever >1 month and or measured oral temperature >37,5°C (consider TB)
- Unexplained loss of >5% body weight in absence of known cause (consider TB)
- New onset severe headache or confusion or memory loss
- New onset difficulty in seeing
- Shortness of breath, or cough >2 weeks or chest pain (consider TB)
- Swollen abdomen or vomiting or diarrhea > 2weeks
- Newly enlarged and enlarging lymph nodes

Completion of registers, clinic notes and/or patient retained records

- Registers
  - None of the above infections are recorded in any clinic register
- Clinic Visit Record (pink card)
  - Record the name of the infection and the treatment that was given in the clinic notes
- Health Passport (yellow card) and/or appointment card
  - Record the name of the infection and the treatment that was given in the clinic notes

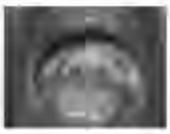
References

- Spencer, DC. The clinical practice of HIV medicine. Goldstream Books. 2005
- Wilson D, Naidoo S, Bekker GL, Cotton M, Maartens G (Eds). Handbook of HIV Medicine. Oxford 2002
- Bartlett JG, Gallant JE. Medical management of HIV infection. Johns Hopkins University 2006
- Anthony Harries (Ed). TB/HIV a clinical manual. Stop TB Department. Department of HIV/AIDS. WHO. 2004.

7b Job Card 8. Management of minor HIV-related infections identified during the course of staging HIV infection

Identification and Treatment of Minor HIV-related infections

identified during the course of staging HIV infection

Condition	Description	Appearance	Empiric treatment	How to counsel the client
Oral Candidiasis (thrush)	Persistent or recurring creamy white cord-like plaques that can be scraped off (pseudomembranous) or red patches on tongue, palate or lining of mouth; usually painful or tender (erythematous form)		Mild oral candidiasis: nystatin solution - apply 4 x daily until cleared Severe candidiasis and oesophageal candidiasis: Fluconazole 200mg po dly x 2 weeks	Thrush is a sign of a weak immune system. Fluconazole is a strong drug and the condition will improve. The best prevention is to restore the immune system by taking ARVs. Fluconazole is teratogenic and effective contraception should be used.
Oesophageal candidiasis (thrush)	Oral thrush AND recent onset of retrosternal pain or difficulty in swallowing (food and fluids)			
Seborrheic dermatitis (itchy, scaling skin)	Itchy scaly skin condition, particularly affecting hairy areas (scalp, axillae, upper trunk and groin)		Topical steroid cream (to the body, betamethasone 0.1%, to the face hydrocortisone 1%). Aqueous cream to apply liberally to affected areas.	Seborrheic dermatitis is made worse when the skin is dry. Keeping the skin moist can relieve symptoms. Steroid cream can be stopped when the rash is under control. Seborrheic dermatitis generally improves on ART. Avoid the use of soap on the skin.
Eosinophilic and bacterial folliculitis (pimples)	Little pimples in hair follicles that may be itchy and have post-inflammatory pigmentation		Topical steroid cream (to the body, betamethasone 0.1%, to the face hydrocortisone 1%). AND Antibacterial cream e.g. mupirocin (Bactroban) or Terramycin (tetracycline)	The steroid cream relieves the itch. The antibacterial cream cures infection. Folliculitis generally improves on ART
Fungal nail infections	Paronychia (painful red and swollen nail bed) or onycholysis (separation of the nail from the nail bed of the fingernails. White discolouration, especially involving proximal part of the nail plate with thickening and separation of the nail from the nail bed		Griseofulvin 400mg po dly X 1 month for fingernails. X 2-3 months for toenails.	Nails take a long time to heal. The old and scarred nail must grow out. The new nail that forms will be healthy. Griseofulvin may cause headaches. Be careful not to drink too much alcohol as griseofulvin elevates blood alcohol levels
Genital herpes	Small painful blisters which ulcerate and then heal with crusting. When CD4 counts are low, the blisters may join together (coalesce) leading to large ulcers. Patients frequently complain of recurrences		Acyclovir 400-800 mg po 5 x day x 7-10 days or until no new lesions appear.	The pills help the ulcers to heal faster. The ulcers may recur, especially after ART is started. If blisters recur, start taking a subsequent prescription of the same medication as soon as possible
Upper respiratory tract infections (a 'cold' or 'flu')	Sinusitis (painful and congested sinuses), otitis media (blocked and painful ears) usually following cold or 'flu'). Fever may or may not be present		Amoxil 500mg po tds x 7 days OR Erythromycin 500mg po qid x 7 days (if penicillin allergic)	Recurrent upper respiratory infections are common at all stages of HIV infection.
Herpes zoster infection (shingles)	Severely painful blisters that ulcerate, on an area of the body, head or limbs. The blisters are usually confined to one or two dermatomes, and stop at the midline		Acyclovir 400-800 mg po 5 x day x 7-10 days or until no new lesions appear. AND Amitryptyline 25 mg nocte and paracetamol 500mg-1g po tds for pain	The pain of zoster is debilitating. The pain may continue after the rash is healed.
Diarrhoea	Frequent passing of stool, often accompanied by vomiting, occasionally leading to dehydration. Chronic diarrhoea may lead to significant weight loss		Oral rehydration AND Metronidazole 400mg po tds x 7 days If blood in stool, add ciprofloxacin 500mg po bd x 7 days OR co-amoxyclav 375 mg po tds x 7 days	Maintenance of hydration is most important. Educate the patient about good personal hygiene and hand washing
Gingivitis (bleeding gums and/or loose teeth)	Red and inflamed gums that bleed easily		Metronidazole 400mg po tds x 7 days AND Salt-water mouth rinse	Good mouth hygiene is essential. Gingivitis will improve on ART
Angular cheilitis (cracks at angles of mouth)	Inflammation or ulcers at the angles of the mouth, usually associated with intra-oral candidiasis		Topical nystatin cream to apply at the angles of the mouth AND Vitamin supplementation (including Vitamins B and C)	This painful condition is often caused by *Candida* infection (the same germ that causes thrush), or because of a vitamin deficiency.

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8

section 8

8 Tuberculin Skin Testing (TST) and assessment of eligibility for Isoniazid prophylactic therapy (IPT)

Tuberculin Skin Testing (TST) and assessment of eligibility for Isoniazid prophylactic therapy (IPT)

8a Tuberculin skin testing and interpretation

Background:

- Most (if not all) people in South Africa are infected with TB but are not ill (they have 'latent' TB infection)
- People who are infected with TB and are not ill (have 'latent TB infection) may go on to develop TB disease
- People who are HIV positive and have latent TB infection have a 10% annual risk of developing TB
- Tuberculin skin testing can identify people who have latent TB infection
- The drug 'Isoniazid' (INH) can kill latent TB and prevent people from getting TB disease for at least 2 years after taking it for 6 months
- Taking INH for six months is known as INH preventive therapy (IPT) and is a safe and effective intervention to prevent TB in people living with HIV.

Aim of the intervention: To identify HIV–seropositive clients who have latent TB infection and are eligible for INH preventive therapy (IPT).

Who should have this intervention? Only well HIV positive clients who do not have symptoms of fever, loss of weight or cough>2 weeks, and whose CD4 count is > 200cells/mm^3 who have not had TB treatment in the last 2 years.

Explanation:

- HIV-positive clients with symptoms of fever, loss of weight or cough>2 weeks should be investigated for tuberculosis disease (see TST poster in this section)
- HIV-positive clients whose CD4 counts are less than 200 cells/mm^3 should receive ART as a matter of priority

  Management of a positive TST in a client who is HIV-negative is unclear
- Treatment for TB means that latent TB infection has been treated.

Do NOT perform a tuberculin skin test on

- HIV negative client
- A client who has fever or loss of weight or cough>2 weeks
- A client who is ill with an undiagnosed condition
- HIV-positive clients whose CD4 count is <200 cells/mm^3
- A client who has completed TB treatment in the last 2 years.

Who may perform the intervention: A nurse or doctor may perform the TST. A nurse or doctor may interpret the result of the TST.

Material required to do the intervention:

Clinical procedures	Investigations/testing	Documentation
• A quiet (private) area for consultation • Alcohol swab for cleaning of injection site.	• 5TU or equivalent strength tuberculin (PPD) in sterile vial • Sterile tuberculin syringe • Needle (27 gauge) • Ballpoint pen or fine black marker • Ruler with scale in millimeters.	• Patient's Clinic Visit Record (*Section B4*) • Patient's Health Passport (*Section B5*) • Clinic TB/HIV Services Register (*Section B2*).

How to perform the TST:

1. Prepare the client
   a. Explain the procedure, the purpose of the procedure, and the what may happen at the injection site (red, inflammation +/- blistering)
   b. Be sure that the client understands that he/she needs to return in 72 hours for the TST to be read and interpreted [Therefore the TST should only be performed on a Monday or a Tuesday]
   c. Ensure that the client is seated in a well-lit area with his/her forearm placed with the palm up on a firm surface.
2. Locate and clean the injection site on the client's forearm
   a. Look for an area free of scars or sores
   b. Clean the area with an alcohol swab.
3. Prepare the syringe
   a. Check the expiration date on the vial and ensure that the vial contains tuberculin 5TU (or equivalent strength) per 0.1ml
   b. Use a single-dose tuberculin syringe with 27 gauge needle with a short bevel
   c. Fill the syringe with 0.1ml of tuberculin.
4. Inject tuberculin
   a. At the selected site, insert the needle slowly, bevel up, at a 5-15° angle
   b. The needle bevel can be seen just below the skin surface
   c. Inject the tuberculin, which should cause a tense, pale, wheal to appear over the needle.
5. Check the skin test
   a. The wheal should be between 6-10 mm in diameter. If not, repeat the test at least 5cm away from original site.
6. Record the information
   a. Record the date and time, the vial lot number and the injection site location in the client record.
   b. Remind the client to return after 48-72 hours for test reading and interpretation.

Reading and interpretation of the results of TST:

Reading the TST

1. Inspect the site
   a. Visually inspect the injection site looking for erythema and induration (thickening of the skin)
2. Palpate the induration
   a. Use fingertips to find the margins of the induration.
3. Mark the induration
   a. Use the fingertips as a guide for marking the widest edge of induration across the forearm. Place a dot at each side of the widest area
4. Measure the induration (not erythema)
   a. Place "0" ruler line inside left dot edge
   b. Read ruler line inside right dot edge (use lower measurement if between two gradations on mm scale)
5. Record measurement of induration in mm
   a. Record measurement in 'mm'
   b. If no induration, record as 0 mm

Interpreting the TST

A "positive" TST: Diameter of induration >4mm (i.e. 5mm or 6mm or 7mm or greater)

A "negative" TST: Diameter of induration ≤4mm (i.e. 4mm or 3 mm or 2mm or 1 mm or no induration)

Action following TST.

Action when TST negative

- Inform the client that their TST was negative, and this means that
  - They do not have latent TB infection OR
  - The client is anergic (unable to mount an immune response to TB)
- Inform the client that research has shown that they will not benefit from INH prophylaxis

Action when TST positive

- Inform the client that their TST was positive, and that this indicates the presence of latent TB infection
- Explain to the client that INH prophylaxis for 6 months can prevent reactivation TB disease for at least 2 years after completion of IPT
- Counsel the client to notify their health care worker if symptoms of TB should appear (fever, cough, night sweats) while they are taking INH prophylaxis

- Warn the client that hepatitis is a rare complication of INH prophylaxis. Request the patient to report symptoms of abdominal pain, nausea and vomiting
- Give the client INH 300mg x 30 days
- Request the client to return one month later unless ill, when they should return immediately
- At every visit, remind the client of the need for compliance, ask for symptoms of INH hepatotoxicity (right upper quadrant pain, vomiting and jaundice) and ask for symptoms of TB.

Completion of registers, clinic notes and/or patient retained records

- Registers
  - Complete the sections in the TB/HIV Services Register that relate to tuberculin skin testing, including the following columns:
    - Date TST placed (Date / not done)
    - Date TST read (Date / not done) TST diameter (mm / not done)
    - TST result (Positive / negative / not done)
    - Eligible for IPT (Yes / No)
    - IPT commenced (Yes (date) / no)
  - If the client is eligible for IPT, enter the client's details in the Wellness register.
- Patient Registration Form and Clinic Visit Record (pink card)
  - Check the relevant box in the Client Visit Record and record the date of commencement of IPT
- Health Passport (yellow card) and/or appointment card
  - Record the results of the TST, including the date of reading
  - Note that IPT was prescribed in the initial assessment section (if relevant) and on the prescription chart underneath the graphs.

References

- WHO Department of HIV/AIDS. Guidelines on Essential Prevention Interventions for Adults and Adolescents Living with HIV infection in Resource-Limited Settings. Draft version January 2007.
- National Department of Health. National Antiretroviral Treatment Guidelines. 2004.
- The Mantoux test. Wall poster. Centres for Disease Control and Prevention. http://www.cdc.gov/tb/pubs/Posters/Mantoux.htm

Tuberculin skin testing –
why, how and what next?

1 Patient selection

Why do a tuberculin skin test?

The TST will identify HIV–seropositive clients who have latent TB infection and will benefit from isoniazid preventive therapy (IPT).

The drug 'isoniazid' (INH) can kill latent TB infection (infection with the germ *Mycobacterium tuberculosis*) and prevent people from getting active TB disease.

Taking INH for six months is known as INH preventive therapy (IPT) and is a safe and effective intervention to prevent TB in people living with HIV.

Ensure client is eligible for INH prophylaxis. The client must be:

HIV-positive

Well (not have active TB disease, symptons of TB or any other illness)

Not eligible for ART

Able to take INH

Do NOT perform a tuberculin skin test on clients who are:

HIV-negative.

Ill with fever or loss of weight or cough>2 weeks

Eligible for ART (CD4 count is <200 cells/mm3) or receiving ART

On TB treatment or have completed TB treatment in the last 2 years

Only place a tuberculin skin test on

MONDAY, TUESDAY or FRIDAY,

because the test must be read 48-72 hours after being placed

2 Administration

1. Locate and clean injection site

Place forearm palm side up on a firm, well-lit surface

Select an area free of scars and sores, approximately 5-10cm below the elbow joint to place the test

Clean this area with an alcohol swab

2. Prepare syringe

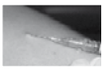
Check expiration date on vial and ensure vial contains tuberculin (PPD RT 23, 2 T.U./0.1ml)

Use a tuberculin syringe and a 27 gauge needle with a short bevel

Fill the syringe with 0.1ml of tuberculin

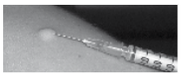
3. Inject tuberculin

Insert the needle slowly into the skin, bevel up, at an angle of 5 - 15 degree



Needle bevel can be seen just below skin surface

During the injection, a tense, pale wheal should appear over the needle



4. Check skin test

Wheal should be 6 to 10mm in diameter. If not, repeat test at a site at least 2 inches away from original site

5. Record Information

Record the date and time of test administration, injection site, lot number and strength of tuberculin on the client's clinic record

3 Reading

The skin test should be read between 48 and 72 hours after administration. A patient who does not return within 72 hours will probably need to be rescheduled for another skin test.

1. Inspect site

Visually inspect site under good light, look for:

Erythema (reddening of the skin) - do not measure this

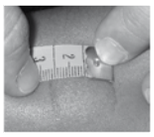
Induration (hard, dense, raised formation)

2. Palpate induration

Use fingers to find margins of induration

3. Mark induration

Use fingertip as a guide for marking widest edges of induration across forearm



4. Measure induration (not erythema)

Place "O" ruler line inside left dot edge

Read ruler line inside right dot edge (use lower measurement if between two gradations on mm scale)

5. Record measurement of induration in mm

If no induration, record as 0mm

Do not record as "positive" or "negative"

Only record measurement in mm

4 Interpretation and action

What is a positive TST?

The TST is **POSITIVE** if the area of induration is **bigger than** 4mm (i.e. 5mm or more)

A positive TST means that the client has latent infection with *Mycobacterium tuberculosis* and will benefit from INH preventive therapy

Action if TST is positive:

Counsel patient regarding INH prophylaxis including

The need for adherence

Possible side effects such as peripheral neuropathy and liver toxicity (pain in right upper quadrant, jaundice, nausea and vomiting)

Give one month's supply of INH 300mg daily

Request client to return in one month or sooner if needed

What is a negative TST?

The TST is **NEGATIVE** if the area of induration is **less than** 4mm, or equal to 4mm in diameter

Negative TST may mean:

that the client is anergic and unable to respond to tuberculin

OR

The client is not infected with *Mycobacterium tuberculosis*

Action if TST is negative:

The client is not eligible for isoniazid prophylaxis

The client should be observed for symptoms of TB (cough >2 weeks, fever and night sweats and return for investigation of TB if these are present

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9

section 9

9 Co-trimoxazole prophylaxis and antiretroviral therapy

Co-trimoxazole prophylaxis and anti-retroviral therapy

9a Using the CD4 count and WHO stage to assess eligibility for co-trimoxazole prophylaxis and antiretroviral therapy

Background

Co-trimoxazole has activity against Pneumocystis jiroveci (causing pneumocystis pneumonia), Toxoplasma gondii (causing toxoplasmosis), some agents of diarrhea and pneumonia (depending on local susceptibility to Co-trimoxazole). In malaria-endemic areas, co-trimoxazole prophylactic therapy may prevent severe and complicated malaria infection. Regular administration of low dose CTX prevents infection with these agents. In addition CPT has been shown to reduce mortality and prolong life of people living with HIV.

Antiretroviral therapy prevents infections by restoring and maintaining the integrity of the immune system.

Aim of providing co-trimoxazole preventive therapy and antiretroviral therapy: CPT protects the client from illness due to opportunistic infections by preventing growth of germs causing illness. ART prevents sickness by keeping the immune system strong (see Job Card 1).

Who may assess eligibility for CPT and ART: A nurse or doctor, or trained lay counsellor may interpret the CD4 count and stage of HIV, and using standard criteria below determine if the client is eligible.

Material required to perform the test:

Clinical procedures	Investigations	Documentation
• None	• None	• The clients CD4 result • The client's WHO stage of HIV infection • Patient's Clinic Visit Record (*Section B4*) • Patient's Health Passport (*Section B5*) • Clinic TB/HIV Services Register (*Section B2*)

Medical criteria for eligibility for CPT (according to WHO guidelines referenced below)[1]:

- When CD4 count results are not available, the criteria for initiation of CPT are based on WHO clinical staging:
  - All patients with WHO clinical stage 2, 3, 4 should receive CPT. This includes all patients with tuberculosis, including present or past pulmonary tuberculosis
- When CD4 results are available:
  - All patients with CD4 count <350 cells/mm^3 should receive CPT

    AND/OR
  - All patients with tuberculosis, regardless of CD4 count should receive CPT.

Medical criteria for eligibility for ART:

- CD4 count <200cells/mm^3 irrespective of WHO stage

OR

- WHO stage 4 disease irrespective of CD4 count

Footnote
[1] RSA guidelines indicate patients with CD4 <200 or TB should receive CPT.

Action following assessment of eligibility for CPT and ART:

1. If client is eligible for CPT, perform the following:
   a. Ensure that the client is not allergic to sulpha-drugs or has a history of allergy to co-trimoxazole
   b. Inform the client regarding the benefits of CPT and confirm that the client is willing to receive CPT
   c. Explain importance of adherence and compliance with CPT
   d. Inform client regarding the possibility of skin side effects, and that the drug should be continued unless severe reactions occur (mucosal ulceration, exfoliative dermatitis or erythema multiforme)
   e. Dispense one month's supply of CPT at a dose of two single-strength tablets daily or one double-strength tablet daily. The total does is 960mg (800mg sulphamethoxazole + 160mg trimethoprim) per day.

2. If the client is eligible for ART, refer within the PHC or to an accredited facility where adherence counselling may be commenced. National Antiretroviral Treatment Guidelines (see reference below) should be followed.
   Give the client the following documentation if referred out:
   - The name, institution and contact details (telephone number) of the site to which the client has been referred, and the name of the facility manager or other contact person at the site
   - A referral note and completed Health Passport (yellow card) stating the clients HIV status, CD4 count, WHO stage of infection, results of TB screen and/or diagnosis, and requesting assessment for ART eligibility
   - The hard copy of the clients HIV test (if available), CD4 count, and any other investigations that may have been done (including sputum TB microscopy).

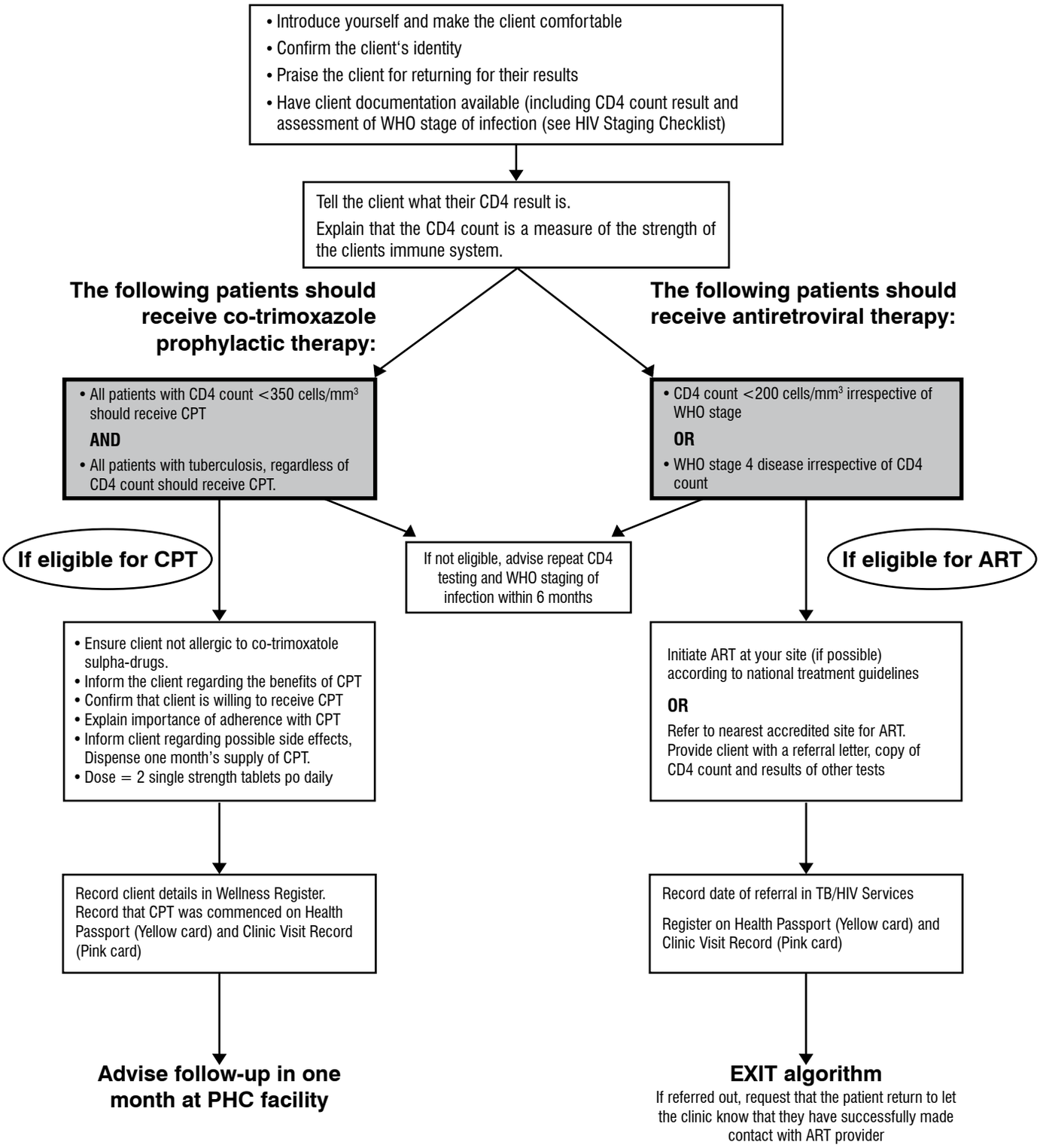
Completion of registers, clinic notes and/or patient retained records

- Registers
  - If eligible for CPT complete the green Section of the TB/HIV Services Register (mark "Yes" in the column "eligible for CPT" and write the date that CPT is commenced in the column "CPT commenced") and
  - enter the clients name in the Wellness Register.
- Clinic Visit Record (pink card)
  - If eligible for CPT, check the relevant box in the Client Visit Record and record the date of commencement of CPT
  - If eligible for ART, check the relevant box in the Client Visit Record, and make a note that the client was referred.
- Health Passport (yellow card) and/or appointment card
  - If client eligible and referred for ART, record date and place of referral
  - Note that CPT was prescribed.

References

- Department of HIV/AIDS, WHO. Guidelines on co-trimoxazole prophylaxis for HIV-related infections among children, adolescents and adults. Recommendations for a public health approach. WHO. 2006
- National Department of Health. National Antiretroviral Treatment Guidelines. 2004.

9b Job Card 9. Assessment of eligibility for cotrimoxazole prophylaxis and antiretroviral therapy



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