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MSF

HIV & TB WG

HIV/TB Integration

INTERIM GUIDANCE DOCUMENT

INTERSECTION DOCUMENT

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This guidance document was tested before publication by several MSF field staff members, who are the intended users. We owe them a big thank-you for their valuable feedback!

MEDECINS SANS FRONTIERES

Table of Contents

Glossary

A/C	Air Conditioning
AEB	Accidental Exposure to Blood
ALT	Alanine Transaminases
ANC	Ante-Natal Care
ART	AntiRetroviral Treatment
ASAP	As Soon As Possible
ATT	Anti TB Treatment
AZT	Zidovudine
BCG	Bacillus Calmette–Guérin
BHC	Basic Health Care
CAGs	Community ART Groups
CHW	Community Health Worker
CO	Clinical Officer
CrAg	Cryptococcal Antigen test
CSF	CerebroSpinal Fluid
CSW	Commercial Sex Worker
CTX	CoTrimoXazole
CXR	Chest X-Ray (chest radiography)
DBS	Dry Blood Spot/Sample
DOT	Directly Observed Treatment
DHIS	District Health Information System
DR TB	Drug Resistant Tuberculosis
DS TB	Drug Sensitive Tuberculosis
DSD	Differentiated Service Delivery
DST	Drug Susceptibility Testing
ECG	ElectroCardioGram
EID	Early Infant Diagnosis
EMR	Electronic Medical Record
EPI	Extended Programme on Immunization
EPTB	Extra-Pulmonary Tuberculosis
FASH	Focused assessment with Sonography for HIV/TB
FDC	Fixed Dose Combination
FieldCo	Field Coordinators
GFATM	Global Fund for AIDS, TB and Malaria
HB	Haemoglobin
HC	Health Centre
HCT	HIV Counselling and Testing
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HIVST	HIV Self-Testing
HP	Health Promotion
HQ	Head Quarters
HR	Human Resources
ID	(Patient) Identity Card
IEC	Information Education Communication
IPC	Infection Prevention and Control practices
IPD	InPatient's Department
IPT	Isoniazid Preventive Treatment

ITFC	Inpatient Therapeutic Feeding Centre
KA	Kala Azar
LAB	Laboratory
3TC	Lamivudine
LTBI	Latent TB Infection
LFU	Lost to Follow-Up
MAM	Medical Activity Manager
MD	Medical Doctor
MDR TB	Multi Drug Resistant Tuberculosis
M&E	Monitoring and Evaluation
MoH	Ministry of Health
MoU	Memorandum of Understanding
MSF	Médecins Sans Frontières
MSM	Men who have Sex with Men
MTL	Medical Team Leader
NAT	Nucleic Acid Testing
N95	Particulate respirator
NCD	Non communicable diseases
NGO	Non-Governmental Organization
NNRTI	Non-Nucleoside Reverse Transcriptase Inhibitors
NVP	Nevirapine
OI	Opportunistic Infection
OPD	Outpatient's Department
PC	Project Coordinator
PCR	Polymerase Chain Reaction
PEP	Post Exposure Prophylaxis
PREP	Pre- Exposure Prophylaxis
PEPFAR	President's Emergency Plan For AIDS Relief
PI	Protease Inhibitors
PICT/PITC	Provider Initiated Counselling and Testing
PHC	Primary Health Care
PLWHIV	People Living With HIV
PMR	Project Medical Referent
PMTCT	Prevention of Mother To Child Transmission of HIV
PoC	Point of Care
POCUS	Point of Care UltraSound
PODI	Poste de Distribution de TARV communautaire
PPE	Personal Protective Equipment
PWTB	People With TB
QA	Quality Assurance
QTc	(corrected) QT interval
RDT	Rapid Diagnostic Test
RR	Rifampicin Resistance
SAM	Severe Acute Malnutrition
SAMU	Southern Africa Medical Unit (MSF)
SAT	Self-Administered Treatment
SGBV	Sexual and Gender-Based Violence
SNRL	Supra National Reference Laboratory
SL	Second Line
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infections
TB	Tuberculosis

TDF	Tenofovir Disoproxil Fumarate
TSH	Thyroid-Stimulating Hormone
U5	Under 5
UNAIDS	Joint United Nations programme on HIV/AIDS
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations International Children's Emergency Fund
VCT	Voluntary Counselling and Testing
VL	Viral Load
WHO	World Health Organisation
XDR TB	Extensively Drug Resistant Tuberculosis

Definitions

Risk groups/vulnerable groups:
Vulnerability is the degree to which a population, individual or organization is unable to anticipate, cope with, resist and recover from the impacts of disasters (diseases)[1].
The term "vulnerable groups" is usually synonymous with "groups at risk". A group is generally considered vulnerable because there is good reason to suspect that the individuals in the group may have special health related difficulties.

Project medical responsible (PMR) / Medical team leader (MTL):
In the context of MSF, the PMR/MTL is a staff member responsible for the functional (and hierarchical in many cases) management (supervision and coaching) of all medical staff and for the quality and implementation of all medical activities at project level. Whether the name for this position is PMR or MTL depends on the MSF section that runs the mission.

Stakeholders:
A stakeholder is any institution or organization that has interest or a role in the activities we are working on, e.g. Ministry of Health, other local or international organizations, communities and patients' groups

Differentiated service delivery (DSD):
Differentiated care is a client-centered approach that simplifies and adapts HIV/TB services across the cascade of care to reflect the preferences and expectations and to serve the needs of various groups of people living with HIV (PLWHIV) while reducing unnecessary burdens on the health system. By providing differentiated care, the health system can refocus resources to those most in need.

Point of Care (PoC):
Is a term used to define laboratory tools and equipment lab equipment / machines and tests that can be made available aat the site of treatment; including ideally at the bed side or in the local laboratory of the health facility. Truly point of care tests are generally equipment-free (such as RDT) or have very simple battery-operated equipment (e.g. glucometer). Other tests involving equipment requiring power supply and/or controlled temperature are generally considered as near point of care, and will be available only when a dedicated laboratory is present (hospital level, or sometimes more decentralized in vertical projects with a high patient volume).

Discordant couples:
Where one of the couples is reactive to a test whereas the other is negative.

[1] https://www.who.int/environmental_health_emergencies/vulnerable_groups/en/

TB LAM:
Rapid test for TB performed on urine (reactive to TB bacilli cell surface antigens called Lipoarabinomannan).

Particulate Respirator (N95):
A mask designed to prevent TB particles (droplet nuclei) less than ≤5µm in diameter size from passing through. This should be worn by all health care workers working in high transmission areas.

Xpert MTB/RIF (brand name GeneXpert):
A near point of care test for MTB/RIF: diagnoses TB and Rifampicin resistance in less than 2 hours. It is the test recommend by WHO as first line for diagnosing TB, when resources allow it.
The Xpert platform can also be expanded with cartridges to do HIV-1 Viral Load testing and EID.

PIMA:
A near point of care instrument to determine CD4 counts.

Rapid Diagnostic Test (RDT):
An instrument-free test in strip or cassette format, aimed at detecting antibody responses or antigens. It consists of a membrane (generally nitrocellulose) coated with antigens (to detect antibodies, e.g. HIV-1 RDT like Determine or Unigold) or antibodies (to detect antigens, e.g. TB-LAM), and reagents which enable visual interpretation of the test.

TB ambassadors:
Experienced PWTB that successfully completed treatment.

HIV/TB Passport:
Document owned by a patient and filled by the treating clinician/nurse that contains the patient's HIV/TB information on card to enable them to continue treatment with other providers. These are used in special situations such as emergence situations (see contingency planning), for mobile populations, etc.

Introduction

This document as written before the COVID emergency, for integration and adaptation of HIV/TB activities due to COVID 19, please follow your section C19 guidance and the HIV/AIDS working group guidance in annex 5.

HIV/TB contributes to significant morbidity/mortality in MSF basic health care projects, especially where HIV prevalence > 1% and TB incidence > 20/100,000 population. MSF has made a strong commitment to integrate HIV and TB care in projects where there is no access to this care[2].
Integration of HIV and TB care in projects with a broader and different medical focus, like primary health care centers, reproductive health and nutrition programs, can be challenging. Within those competing priorities, HIV/TB care needs to remain a focus and fitted efficiently at field level to avoid overly complex approaches and maximize existing opportunities.

In that line of thinking, the 'minimal package' approach of the MSF 2015 guideline on integration of HIV & TB care[3] was debated. The rapid change in international standards, ongoing innovations in HIV/TB care such as differentiated service delivery and the diversity in every context, challenged a 'fixed' minimal package approach. Instead, a choice was made to review the existing guideline into a tool/guide to enable the field to discover and 'tailor' a desired package for any project in order to integrate HIV and TB care.

The document is divided into four parts, taking a step by step approach; assessment, implementation strategy, special contexts and overview of HIV/TB activities. The document is intended to summarise and give an overview to help medical and operational coordinators set up a HIV/TB care integration component within their project(s) or mission(s). For details on implementation processes and clinical instructions, each chapter refers to the corresponding (clinical) guidelines. Each MSF section has dedicated HIV and TB specialists and it is highly recommended to consult them during all steps of the integration; design and processes to be taken (and after).

Key assumptions:
- The intended audience for this document is any operational and/or medical staff member, irrespective of their experience with HIV- and TB-care, whose aim is to integrate HIV and TB care into their project.
- Any project adjustments or new components will have to be approved first by the standard procedures of the MSF section involved (project proposals/COPRO…etc). This document assumes this approval or the intent to make a project proposal for approval.
- The document aims to be an implementation tool, giving the reader tools and guidance on how to design an HIV/TB component. It does not replace available HIV/TB clinical guidelines.
- While the title refers to a comprehensive integration of HIV and TB, individual elements of it can be used and extracted from this document to allow answering more specific needs of integration of specific components of care (e.g. TB and non-HIV, HIV and non-TB).

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How this document works

Part I of this document starts with the assessment of the HIV and TB situation in the mission country, the catchment area and the project itself. From this assessment the needs/gaps and the opportunities with regards to HIV/TB care should become clear, forming the basis of the programmatic design.

[2] MSF TB political statement, September 2017, and HIV strategic framework, January 2019

[3] MSF programmatic guide 'Integrating HIV & TB care in basic health care package in MSF projects' 2015

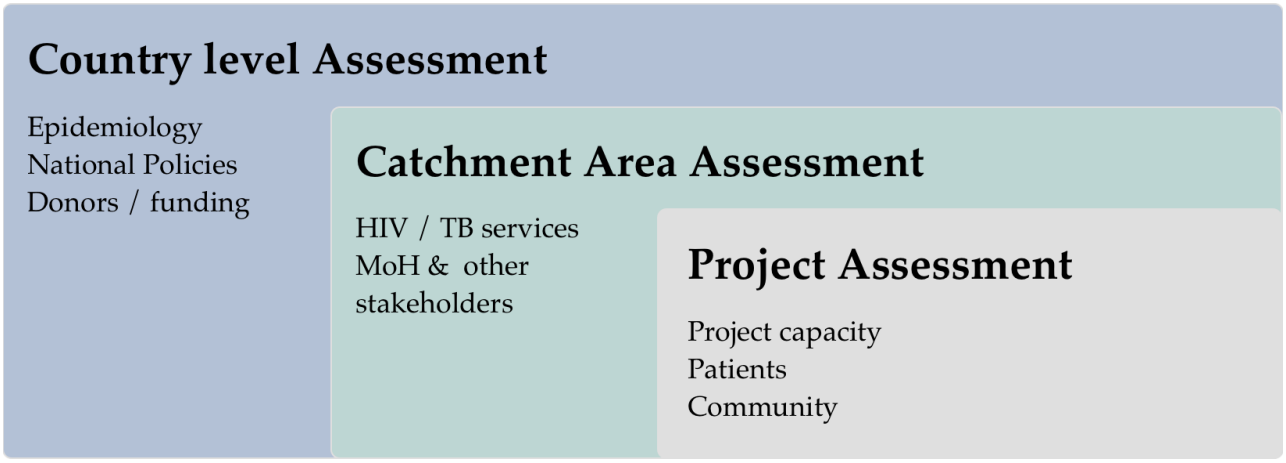
Part II offers different implementation strategies and looks at potential operational impact factors that need to be considered while designing the integration of the components, like human resources, training, supplies and finance. But also considerations regarding regular (re)assessments, scaling up and exit strategy .

Part III focusses on the contingency plan and HIV/TB integration in special situations such as emergencies, unstable settings and nomadic or migrant populations.

Part IV provides an overview of HIV and TB care activities. The activities are split into chapters of care components, such as prevention, testing, treatment, etcetera. Each component lists a number of activity options to choose from. The options have various levels of complexity and are detailed into building blocks, the 'what/where/for whom/when/by who' and further explained in the text that follows.

Part I: Assessment

There are three important areas to assess before designing an HIV/TB integration component.
Annex 1 contains the assessment tools matching the different areas; country level, catchment area and project assessment. In broad lines the assessments cover the following:



HIV/TB context at country level

Most countries have national policies and clinical guidelines on HIV and TB. Usually the Medical Coordinator knows or assesses at this level. There might be clear directions from the Ministry of Health on what treatment regimens to use and other clinical and programmatic instructions. It's very important to be aware of these and go through them with your section HIV/TB referent/specialist/advisor (after this called 'referent'), to evaluate where they overlap with MSF policies and guidelines and how to deal with any differences.
Other important information at country level is the general epidemiology of both diseases and any donors/funding and coordination mechanisms that can have impactful roles.

Specific HIV and TB assessments in the catchment area of the project

The questions in the assessment tool in annex 1 are focussed on the services available in the catchment area of the project, including the MSF project itself and any MoH facilities or other stakeholders. It goes into detail on the different components of HIV/TB care, such as testing and treatment, prevention, patient education & counselling, and community engagement. This will inform if and where there are gaps in care and point at where MSF provision of services might have an added value. If there are other clinics with good quality HIV care, you might choose to refer patients, or integrate only certain components that are not available elsewhere in the catchment area.
Note that ooften, TB services are separated from HIV care services and sources of information for HIV can be different for TB. Therefore, although some basics for both diseases might be similar, data collection, meeting with key informants and implementing partners might differ.

Project assessment

Besides assessing HIV and TB epidemiology, policies, and service provision at country level and in the project catchment area, you need an inventory of the options and opportunities in the project where the integration is being considered. Maybe there are already elements or tools for HIV/TB care in place, e.g. some staff members have been trained or have worked with HIV/TB before? Is there a project laboratory and what kind of tests are available?

The success of the integration plan will also depend on understanding the needs of the patient population. What kind of patients are you expecting to be in need HIV and TB care? Do they have specific needs with

regard to health services? Are there vulnerable groups, such as sex workers or migrants? Or do you expect many pregnant women at risk, adolescents, or malnourished children?
Determining who the patients are and what they need, is important for the programmatic design in more than one way. Ffirst, by keeping the patients and their needs at the center of your design, to increase their quality of care, but also from the programmatic point of view of designing your services in a more efficient manner. This is called DSD or Differentiated Service Delivery[4].

The other main factor in the project context is of course the general community you are serving. Are they aware of HIV and TB? Is there stigma around the diseases or is the community actively engaged with prevention activities?

The stability of the project context will determine if you can integrate a stable HIV/TB component or if you need to take special circumstances into account, such as instability, emergencies, or mobile/nomadic populations. In any case it is always a good idea to prepare a contingency plan, even if your context is stable. You can read more on recommendations for Special Contexts and contingency planning in part IV of this document.

[4] http://www.differentiatedcare.org/Resources/Library

Part II: Integration Strategy (Project Design)

After the assessment and a thorough look at the activity options and requirements, it should now be clearer what to include in the HIV/TB care integration component. Of course, any actual implementation is preceded by discussion, advice and agreement between project/mission, cell/desks and advisors involved in the mission.

Implementation strategies

There are different ways to go about integrating HIV/TB activities, there is not necessarily one option better than the others. What you choose depends on the results of the assessment and the possibilities in the project.

There are two basic strategies: integrate the activities into other medical activities/departments in the health facility or inserting a small vertical program (independently run services entirely dedicated to HIV/TB care):

A. Integration into other activities is more true integration, where HIV and TB care become part of the regular medical activities. The care is delivered by the health care workers who also deliver the existing medical care, in the same space (OPD, IPD etc.). Annex 4 shows a visual example of how the activities cwould be integrated at hospital and clinic level.
B. Small vertical programs within the larger project. A small team, e.g. a dedicated nurse or clinical officer and a counsellor, supported by an MD in the project (or on distance), cares for patients with HIV and TB parallel to other project activities. Even if this is not the intended end-result of integration, it can be a good way to start HIV/TB activities.

Implementation cconsiderations:

1. Referral options: The assessment shows if there are HIV/TB care activities available through the MoH and/or other actors in the vicinity. There could be no options within a reasonable distance from the project, or a mix of options, varying in quality and levels of care. Depending on those referral options, you can choose which activities to integrate and when to refer. Keep in mind that if you choose to refer, you should have a good idea of the quality of care in the referral site and a plan on how to follow up on referrals.
2. Stepwise approach: HIV and TB components can be set up from small to large, from basic to best practice. The overview in part IV show the different options. Include a timeline in the strategy and a stepwise approach to implement activities at a pace that suits project needs and resources.
3. Integration within other chronic conditions such as NCDs, mental health, etc. can also be considered depending on project priorities.
4. DSD[5] : differentiated service delivery can make the services work more effectively - both for the project and the patients. From the assessment a picture should emerge which patients you can expect to include in the project for HIV and TB care. Based on these profiles you can investigate ways of streamlining the care in models that suit those patients.
5. Contingency plan: The context stability of the project is a huge factor for strategy and implementation. Part III Special Contexts has more information and specific recommendations on unstable contexts. But even a project in a stable context needs to have a contingency plan in place to be prepared in case the context changes. See Part IV for more details.
6. Support: Every MSF section has dedicated medical coordinators, health advisers and HIV/TB referents. There are also specialists who can stay for longer in the field to help set up certain component

[5] http://www.differentiatedcare.org/Resources/Library

activities, like Mobile Implementation Officers (MIO) or Flying Implementers. Next to that, of course do not forget to look around in the country you are in, the MoH and funding mechanisms can provide plenty of opportunities, such as training on HIV/TB.

Operational Impact

There can be many questions about the potential operational impact of a new project component. What will it mean for finance, HR and log resources in the project and mission? Could there be an impact on the surrounding health services? Will it have an impact on the intended timeline of the project?

While the answer "it depends..." might be true - as things do vary greatly from context to context -, it does not give any useful handholds when designing an integration component. Therefore we have attempted here in PART II, to give more information and advice on potential operational impact.
Of course all under the disclaimer that it really does 'depend' on the situation your project is in.

Potential operational impact on the project/mission and surrounding health services:
To understand the impact, you could schedule regular HIV/TB re-assessments of the project and surrounding catchment area (and on country level if needed). Such a re-assessment is more likely to take place if already planned for (e.g.) the next year. Re-assessment generates insight into how much the resources of the project have changed and if there is impact on other providers in the catchment area. This insight could lead to adjustments and feeds up-to-date information into the exit strategy and scaling up (or down) decisions. The initial assessment forms (see annex 1) can be re-used so the information from the re-assessment is comparable with previous assessments.

Other potential impact factors to take into account:
- Field support visits. In the beginning or even before the start of a new component, field visits from HIV/TB specialists can be expected/requested. All sections have access to implementation support to help set up the new component with longer or more frequent field visits.
- Additional, perhaps sensitive, negotiations will be needed at local and or country level (e.g. the inclusion of HIV/TB activities in the MoU). These negotiations can take time to set up and will need to be done carefully by an experienced team member. There are often many parties to discuss with; of course the MoH and the local community, but also think of global funders, local grass root initiatives and other health care providers; non-governmental, private sector, etcetera.
- Time impact. An important operational concern is whether adding an HIV/TB component will lead to time commitments that could alter the original intended timeline of a project. Setting up an appropriate exit strategy (including linking to and increasing capacity of existing programs such as MoH and sustainable funding agencies like GF) from the start could help negate this concern.
- What will be the likely increases in resources? In HR, Logistics and Finance? We will attempt to list the 'big impact' items below, to support an estimation for the situation/project/mission you are in.
- Mutualisation. There is often more than one MSF section in a country and therefore an operational opportunity to share resources and knowledge.

Human Resources

To implement any new component activity you will need the human resources to do it.
The tables throughout the document indicate what kind of human resources are needed for each specific component activity. Please note that not every activity needs a 'new' staff member: different activities can be combined and implemented by one staff member, or staff members who are already working in the

project can take on one or more of the activities (be careful to avoid work overload though). Use the opportunities that are already available in the project.

Such opportunities also include task shifting and working with lay-workers, like peer-counsellors and ambassadors/peers/expert patients.

Different job profiles to be considered in the HIV/TB integration team:
- **Medical Doctor:** a trained medical doctor can act as project technical advisor (depending on expertise), supporting complicated cases.
- **Clinical officer/medical assistant/nurse:** training and task shifting has been key for the scale up of HIV/TB components. Management of HIV/TB is not anymore a highly specialized activity, most essential clinical activities can be implemented by other medical staff.
- **Midwives:** midwives can be trained to include PMTCT in their services, with the other medical staff available to help if needed.
- **Counsellor:** patient education & counselling can be done - after training- by any healthcare, lay workers or peer educaors.
- **Community Health Workers (CHWs):** they can support / implement the HP/CE activities.
- **Peer educators/counselors/supporters:** people living with HIV and/or TB are often better accepted by their peers and can work as lay-counsellors or support/implement HP/CE activities.
- **Laboratory technicians:** HIV and TB testing in laboratory settings.

Not to forget: HR: job descriptions, clear briefings and if needed an organizational chart to show the level of responsibilities and accountabilities and the relationships between the different positions.

The number of (extra) people needed to run an integrated health program depends (of course) on the local situation, capacity, education levels, size of the component and the stage of emergency the project is in. This makes it hard to state exact numbers, but to give an indication of what is needed the table below differentiates between components and volume of expected patients.
This is certainly not prescriptive! It's an attempt to give an overview of HR positions to take into account while designing your integration project.
As always, please consult with your coordinators and referents.

Also note that the estimation below looks primarily at medical staff. If the workload for e.g. logistics or pharmacy increases, those departments should certainly review their capacity and needs.

0 - 100 patients in cohort/component (HIV or TB or both):
If each patient visits once per month on average and the month has 20 working days: 0-5 patients a day in OPD. Once the patients are stable, they can come in for refills once every 3 to 6 months. Indicative timing for OPD consultations would be 20 minutes for a new patient, 10-20 minutes for a counselling session and 3-5 minutes for stable asymptomatic patient consultations.
The number of HIV/TB tests is depending on whether the project implements PICT or VCT. In theory, if e.g. the prevalence is 1%, this would mean up to 5000 people would need to be tested to diagnose 50 patients, but as PICT targets patients who are already clinically suspected of either TB or HIV, that number will be much lower.

Each component chosen in the integrated program needs a staff member, but not full-time if the workload is low. Please keep in mind that an additional staff member will need to be trained to fill in during holidays or shift work -> therefore '1 to 2 people' is stated in the table.
Some components can be joined under one person, e.g. treatment staff can also take care of the M&E activities while the number of patients is low. Or the counsellor can take care of patient education & counselling, case finding & testing and HPCE. And there are options to enlist volunteers or peer counsellors to help with the component.

Here the choice between integrated or a small vertical program is of major influence. Integrated would mean that various staff members who are already working in the health facility take on tasks of caring for the HIV and TB patients.
A small vertical program could e.g. include 1 to 2 nurses/clinical officers and a full-time counselor, with the medical back-up of an MD (either local or on distance) to advise on the IPD patients.

100 - 500 patients in cohort/component, 10-15 new patients a month (HIV or TB or both):
If each patient visits once per month on average and the month has 20 working days: 5 - 25 patients a day in OPD. Again, once the patients are stable (can be up to 50%), they can come once every 3 to 6 months, reducing the number of consultations. The number of patients that need to be admitted to IPD is often related to the number of new admissions in the component (e.g. 5 IPD cases where there are 50 new admissions per month). Once patients are stable on treatment they are rarely hospitalized.

In a growing program towards 500 patients, the activities become more 'work-day-filling' and the 1 to 2 people assigned to a component will have to be enabled to use more to all of their work-time for the HIV and TB patients. This means either freeing them up from other tasks or assigning more staff members to each do a part of it.

> 500 patients in cohort/component (HIV or TB or both):
If the program grows to more than 500 patients, more staff will need to be full-time dedicated to the HIV and TB care. The component requires dedicated staff (consultant/nurse and counsellor) to manage the cohort and its outcomes, including management and coordination of DSD activities.

With these larger numbers, testing is likely be done through VCT and staff would be needed to do counselling and testing on a daily basis. Also other components would no longer be manageable if they remain joined, such as the M&E and HPCE.

Again the numbers in the table are just indications!

<table>
<tr><th>Component</th><th>0 - 100 patients</th><th>100 - 500 patients</th><th>> 500 patients</th></tr>
<tr><td>Treatment (IPD)</td><td>MD back-up</td><td>MD back-up</td><td>MD fulltime</td></tr>
<tr><td>Treatment (OPD)</td><td rowspan="2">1-2 RN/CO
part-time</td><td rowspan="2">1-2 RN/CO
part-time to full-time</td><td>> 2 RN/CO full-time</td></tr>
<tr><td>M&E</td><td>1 - 2 data clerks</td></tr>
<tr><td>PMTCT</td><td>1-2 midwife trained</td><td>1-2 midwife trained</td><td>> 2 midwife trained</td></tr>
<tr><td>Prevention</td><td rowspan="4">1-2 counsellors
part-time to full-time
(think also of peer counsellors)</td><td rowspan="3">1-2 counsellors
part-time to full-time
(if needed, separate VCT and adherence)</td><td>Dedicated prevention staff member</td></tr>
<tr><td>Case finding and testing</td><td>> 2 VCT staff</td></tr>
<tr><td>Patient Education & Counselling</td><td>> 2 counsellors</td></tr>
<tr><td>HP&CE</td><td>1-2 HP&CE staff
part-time to full-time</td><td>> 2 HP&CE staff</td></tr>
<tr><td>Laboratory</td><td>1 - 2 lab technicians trained or referral</td><td>1 - 2 lab technicians trained or referral</td><td>> 2 lab technicians dedicated to component</td></tr>
</table>

Examples (treatment part) from existing projects:
- DRC: cohort 500 and 15 new admissions per month -> 2 nurse consultants and 1 supervisor.
- Zimbabwe: 15-20 new admissions per month and cohort 1000 -> 2 nurses.
- CAR: 450 patients and 5-10 admissions per month -> 1 nurse consultant or trained nurse assistant.

Training

The medical staff should be trained according to the level of care. There is a range of HIV/TB training support available in MSF. For example training that can be obtained through MSF SAMU, including:
- HIV/TB E-learning for basic level, available online.
- HIV/TB clinical training offered on site (upon request) and an advanced training in Cape Town.
- HIV/TB programmatic training for program managers; includes programmatic integration.
- DR TB training (available only in Cape Town).

Additional onsite implementation support can be obtained through a mobile implementing officer (MIO). Ongoing technical support is offered regularly through the section HIV/TB referent.

In-country training programs: There are in-country trainings organized by MSF, MOH and/or other stakeholders, including training on national guidelines, M&E tools (data collection) in HIV/TB, etc.

Supply: ordering tools and timeline

Ordering the drugs needed for HIV and TB care can require some support/expertise, especially at the start. First, it's important to take into account that treatment regimens can depend on the national policies. Please discuss with your HIV/TB referent. Secondly, the HIV drugs need to be calculated in a different way than in normal orders. The order will need to take into account the current patients, the estimated number of new patients, and buffer stocks. The amount to be ordered is cumulative. To help with making the order, there is a calculation tool HIV in annex 2. The tests and drugs for opportunistic infections are part of the regular order calculations. This is like other chronic conditions.

Global Fund (GF) or MoH drugs can be used if available but consider starting the component with MSF drugs as transitioning to the GF drugs and procurement system may take some time.
The drug ordering tools provided in annex 2 can also help in estimating /ordering ARVs from MoH/GF. Once it is possible to get ARVs through GF/MoH, it is important to continue procuring buffer supplies through MSF system to prevent ruptures and stock outs, including tests and drugs for OIs. Your section pharmacist can help you if there are questions regarding the quality of drugs (e.g. if provided through a co-financing system).

As with any orders, please mind the lead times! It will take time for the first order to arrive on project level and timely new orders are important to ensure no one ruptures on their treatment drugs. For the start-up of a component (especially in emergencies) it could be worthwhile to look at the HIV/TB kits available via MSF supply and the HIV/TB emergency kit for 50 patients - see annex 3.

Finance: costs and country funding mechanisms

The exact finance needs are highly depending on the circumstances (e.g. location, staff salaries, drug and materials availability and costs, etcetera). Perhaps helpful, but only meant as an example, annex 6 gives an estimated budget per patient for the Yambio (South Sudan) Test & treat project.

The extra costs of an HIV/TB integration component can be impacted by several factors:

- The costs of HIV/TB drugs. The extra drugs (including OI drugs!) will have to be ordered and featured in the budget. Fortunately, the price for HIV and TB drugs has come down significantly over the past years, after a lot of efforts from many actors (including MSF Access Campaign, Clinton Foundation HIV Initiative, etc..).
- The costs of tests and laboratory machines. Note to keep in mind is that lab machines can be expensive on initial purchase, especially if the project laboratory needs to be adjusted, e.g. Xpert can require an air conditioner.
- International funding. Most countries get dedicated funding from international sources like the Global Fund (GF) and PEPPAR for their HIV programs (note: global donors and funders are experiencing a reduction in funds). TB programs are normally partially funded by country governments. MSF does not use direct funding from GF or PEPFAR, but it is possible to use commodities provided such as ARVs and lab re-agents (see supply).
- Specific funding in projects may depend on several factors.
  - Where MoH does not exist, MSF could be the only source of funding. This may change over time because of continued advocacy work, drawing in other actors, including MoH, GF etc.
  - Where there is an existing program (MoH, other actors etc.), depending on the results of the assessment, funding for HIV/TB services could be shared between MSF and other stakeholders, especially MoH and the GF. For example, staff and clinic infrastructure could be provided by MoH and all the drugs procured through GF while MSF could support with transport.

Exit strategy

It might be a challenge to think of an exit strategy before you have even begun the implementation of the HIV/TB component. However, past experiences urge us to keep in mind how the component could continue after MSF is no longer present, while setting it up and throughout the projects' duration.

Note: Not seeing any possibility for a decent exit should not be a sole reason to not even start. If this is the case for your project, please discuss with your coordinators and HIV/TB referent.

For more complete information on exit strategies, please see the MSF document "Making an Exit" (MSF UK 2011)[6]. In general, it is recommended to start long-term thinking (including the exit strategy) as soon as a project is leaving the acute emergency phase and nurture positive relationships with other actors from the start.

Key considerations when planning exit /handover of MSF HIV/TB activities are:

- Ensuring continuity of services. Identify potential handover partners for the future (ideally MoH) and assess whether they have ensured mechanisms for provision of uninterrupted supply of ARV's and TB medication. The same for the availability of key staff to run the component (minimum nurse/counsellor).
- Enabling environment. When considering the exit strategy, allow for enough time to plan and implement a handover. Consider a phased approach in handing over components.
- Communication. Start sufficient, clear and consistent communication with all stakeholders on time. This includes staff, patients, other actors and the community. Negotiation of the handover strategy with the handover partner(s) can be supported with e.g. a dashboard with agreed objectives, clear timelines, and the monitoring process.
- Quality of Care. If going from a high resource/costs level to a low(er) resource/costs level, the quality of care is likely to drop. Defining optimum quality level of care and a timely planning of the handover process with agreed outcome goals, should support retaining an acceptable level of care.

[6] http://evaluation.msf.org/project-handovers

Adapting existing integrated HIV/TB services

So far, the assumption has been that the integration component had to start from scratch. But there are also projects that already have HIV and TB components integrated in their services.

These projects might want to adapt their services, but... when is a good time and what are the right reasons for adaptation? What are the main barriers you might run into?

A re-assessment of the situation should help in answering most of these questions. The assessment tools in annex 1 can help here as well. E.g. did the HIV/TB policies or international funding situation change? Are there new actors who also have an HIV/TB component and what is their quality of care? Who are the patients, is there a possibility to differentiate the care in a more effective way? What is the capacity within the project, is there room to grow? Etcetera.

Of course, it is a good idea to involve your HIV/TB referent for advice on scaling up (including the best available tools to use in order to simplify care, such as viral load testing, decentralisation and DSDs such as CAGs).

It is also good to keep in mind that scaling up does not always imply more work. For example, getting an Xpert machine testing Viral Load can mean that stable patients can safely reduce the number of check-ups at the clinic, because their viral load is undetectable, and they can join a DSD model.

Log-frame and Minimum Standard Indicators

To bring it all together you'll need to adjust the project log-frame to now include the HIV/TB activities. Add specific objectives with verifiable indicators (that connect easily to the M&E system). There are many possible indicators, depending of course on the activities to integrate. Below are minimum standard indicators that can be used in a log-frame. Please discuss with the HIV/TB referent if your section has specific requirements for the log-frame, e.g. regarding indicators and the phrasing of specific objectives.

Minimum HIV standard indicators (For a chosen period)	**Minimum TB standard indicators** (For a chosen period)
Use of services • Number tested • No. & % HIV + • No. & % on ART **Periodic outcomes** • No. & % lost to follow up (LFU) • No. & % dead • No. & % retained in care **PMTCT** • No. & % pregnant women tested HIV+ • No. & % babies HIV+ in program at end of 24 months **Viral load** No. & % virologically suppressed No. & % with detectable VL > 1000 copies/ml No. & % on second line ART	**Use of Services** • Number tested for TB. • No. & % New cases confirmed DSTB • No. & % New DSTB cases commenced anti-TB • No. & % RR/MDR cases • No. & % RR/MDR commenced on treatment. **HIV/TB** • No. & % HIV + • No. & % on ART **End of treatment outcomes** • No. & % successfully treated • No. & % failures • NO. & % lost to follow up (LFU) • No. & % dead **TB preventive therapy** • No. & % <5s completed TB prophylaxis • No. & % of PLHIV completed TB prophylaxis

Part III: Special Contexts

HIV/TB treatment and Emergencies

2.5 Million People living with HIV were affected by humanitarian emergencies globally in 2016 according to UNAIDS (an increase from 1.67 million in 2013) with the greatest increase occurring in Sub Saharan Africa (1.2 to 1.7 million). The treatment gap has also increased from 1 million in 2013 to 1.25 million in 2016.

In 2006 WHO, UNHCR, UNAIDS, UNICEF and MSF reached a consensus saying that delivering ARV treatment in emergencies is feasible and represents an obligation in terms of human rights and public health strategy[7].

The needs of this population need to be included in the emergency response when cut off from original health services. Progress has been made to date with UNAIDS recognition of the problem and launch of the Interagency task team (IATT) in 2011 to work with governments, the civil society and other organizations to address among other things support to HIV policy development, programming, resource mobilization and strategic planning.

Contingency Planning

In settings where instability or acute emergency happens and HIV/TB components are already running, MSF should guarantee that HIV/TB activities in place continue functioning without disruption. Repeated interruption in drug supply will compromise health outcomes for patients under HIV/TB treatment and can potentially cause development or amplification of resistance to ARV and/or anti-tuberculosis drugs.

The Contingency plan (CP) aims to avoid treatment interruptions by providing extra drug stock (ART, anti-TB drugs, CTX, NVP in PMTCT cases) before or during instability. To allow ample time to normalization of services or for patients to access services elsewhere.

This takes planning beforehand. The preparation phase (see table below) includes preparing 'run-away bags' with 3 to 6 months of drugs and education of the patients on what to do in case the contingency plan needs to be put into action. Once this is the case, the reaction phase starts, and the bags are distributed.

Ideally, a CP should be defined before starting activities (or at least, before instability arises), as well as be regularly updated according to context and project situation. The CP needs to be known by the key people in the field, as well as by the patients.

CP should be activated before the instability/emergency comes to a point in which the normal activities of the project are interrupted, due to evacuation of staff and/or reduction of activities. CP design and activation is intrinsically related to the security level of the project, what normally is defined by the field and mission coordination

MSF drug supplies/international orders should take into consideration the implementation of CP, as extra drugs supplies will be required in addition to the normal supply. This needs to be planned well in advance as the lack of enough stock may affect the implementation of CPs. Add Contingency stock forecasted according to the amount to be supplied as per the contingency guideline/plan.

[7] Delivering antiretroviral drugs in emergencies: neglected but feasible, 20 September 2006, WHO. https://www.who.int/hac/techguidance/pht/HIV_AIDS_101106_arvemergencies.pdf?ua=1

Objectives	**Preparation Phase** (before emergency / disruption of services)	**Reaction Phase** Before disruption happens When disruption has happened, we may be late to distribute the runaway bags.
What	Map patient locations. Register to note patients under CP. Identify key persons at clinic (NS) and community level (PLWHIV / CHW). Inform patients and obtain consent for CHWs wo distribute run-away bags. Give all patients a "HIV/TB Passport". Educate patients on what to do. Prepare "run-away bags" 3-6 months drugs supply. Contingency stock at all health facilities: check and rotate stock according to expiring date;	Distribute "run-away bags" in clinic or through community focal person. Send contingency stock to health facilities (if not done before). If feasible, continue screening/HIV test and new inclusions in ANC, clinically suspect patients (including children) and nutritional programs;
Where	In all projects where instability is expected according to risk analysis At coordination level At project level: CP document in place At health facility level At community level	At project level At health facility level At community level
For Whom	All patients in the HIV/TB component	All PLWHIV / PWTB affected by instability
Who	PMR/MTL: to coordinate all CP and brief expats HIV/TB Supervisor: to ensure awareness of national staff Medco and Pharmacists (mission and project): to prepare stocks	CP is activated by FieldCo and coordinated by PMR Key persons: - National staff: nurse, counsellor - Community level: PLWH or CHW

New Emergency Intervention - without pre-existing project

In a new emergency intervention -without a pre-existing MSF project-, a basic HIV/TB assessment needs to be included in the emergency assessment and mapping of the situation. Emergency orders should include TB and ARV drugs. To assist with the first order, an Emergency Kit for HIV and TB care for 50 patients has been developed to start with, see annex 3.

The recommendation for HIV/TB care in the early stages of a new emergency intervention is to first focus on making sure patients who were already receiving HIV/TB drugs get their refills they need to avoid interruption. Other early stage components include Universal Precaution Measures, ensuring PEP is available, safe blood transfusion, condoms and contingency planning.

Objectives	Prevention Treatment Interruption / Re-Initiation	Prevention High Risk Transmission
What	ART / ATT continuation: OPD/IPT consultations, DSD models ART distribution for stable patients. ART for vulnerable patients (TB, OI, ITFC, KA) if feasible. Contingency planning. Adherence Counselling: OPD/IPD counselling and testing;	PEP to staff. SGBV in SRH/OPD. HIV testing for Pregnant & breast feeding women.
Where	Any supported facilities	Any supported facilities
For Whom	Patients who were already receiving HIV or TB treatment Vulnerable / very sick patients who need treatment	Staff members at risk Sexual Violence Survivors
Who	Expats mainly Trained national staff: MD, nurse, midwife, counsellor	Expats mainly Trained national staff: MD, nurse, midwife, counsellor

Emergency/Instability in pre-existing project

In a situation where the emergency/instability takes place where an MSF project with an HIV/TB component already exists, MSF should guarantee that HIV/TB activities in place continue functioning. Whether continuation of activities is possible will depend on the level of disruption:

1. Complete disruption: Due to severe insecurity, staff might be evacuated or hibernating, forcing the health facility to be closed. Ideally emergency preparedness has been done for this scenario and a contingency plan can be activated as soon as it becomes possible.
2. Where disruption allows staff and patients (some) access to the facility, services may be limited to provision of contingency supplies and emergency drug refills to existing patients to prevent interruption and giving lifesaving treatment.
3. Situation may become a chronic insecurity setting, allowing continuity of limited or adjusted services.
4. Situation completely returns to normal, full activities resume.

In such situations, handling HIV TB services may be approached in phases depending on level of disruption/insecurity. Below are some suggested approaches to take depending on the level of disruption:

	1st phase: Complete disruption	**2nd phase:** Disruption with (some) access to facility	**3rd phase:** Chronic low-level insecurity
Objectives	No activities	Prevention of treatment interruption Prevention of high-risk transmission Re-initiation of treatment after interruption Contingency plan	Ensure non-interruption of treatment for all on ART and TB drugs ART for vulnerable patients Prevention Contingency plan
What	No activities	ART & TB treatment continuation Contingency plan SGBV PEP	Prevention activities Test and treat Patient Education/Counselling services Lab monitoring (CD4, Xpert for TB/VL/EID or DBS referrals) Monitoring and evaluation Community engagement and community models of care
Where	Facility inaccessible/ closed	Health Facility (OPD, IPD, ANC, TB/HIV clinic)	All Facilities and Community: HP, DSD, contact + lost to follow-up tracing
For Who	No patients	PLWHIV and PWTB Victims of SGBV Staff, Pregnant /Breast feeding women linked to SRH	PLWHIV and PWTB Vulnerable patients, ITFC, Kala Azar patients, Patients in OPD/IPD with OIs, Pregnant women in ANC and breast-feeding women in PNC linked to SRH.
Who	No staff	Shared tasks between expats/national staff	Tasks shifted to key national staff (MD, nurse, counsellor, CHW)

Mobile Populations

There are different situations that can lead to movements of population:

- Conflict and displacement
- Nomadic populations
- Migrant workers

The challenge of people on the move for HIV/TB care is that you do not know when and even if you are going to see them again in your clinic. However, this does not have to be a reason not to implement HIV/TB care. The following steps are recommended to try to keep patients on HIV and TB treatment as safe as possible:

1. Map all facilities providing HIV/TB care in the area
2. Map population movements in case of nomadic or migrant workers (cycles, timing)
3. Give HIV/TB passport card to all patients
4. Register all mobile populations including telephone contact and ensure 3-6 monthly telephone contact if possible
5. Strong education to patient and family members
6. Ensure yearly viral load monitoring

	Integration of HIV/TB in mobile populations
Objective	Prevention of treatment interruption
What	ART continuation (6 months or more, depending on movements) ATT continuation (full course) PSEC
How	1. Map all facilities providing HIV/TB care in the area 2. Map population movements in case of nomadic (cycles, timing). 3. Give HIV/TB passport card to all patients 4. Register all mobile populations including telephone contact and ensure 3-6 monthly telephone contact 5. Ensure adequate health education and necessary information to patient and family members at each contact, 6. Educate on importance of yearly viral load monitoring
Where	HIV/TB facility
Who	Trained national staff: MD, nurse, midwife, counsellor

Part HIV/TB Activities

This chapter outlines the different components and activity options within HIV and TB care.
There are quite a few options with various levels of complexity. A project can decide which components /options are relevant, considering their assessment of the HIV/TB context, their patients and the project's capacity. The tables below give an overview of the components and options.

HIV care

Component	Activity options			
Prevention	Condoms	PEP	PrEP	
PMTCT	Identification HIV+ pregnant	Prophylaxis	Early Infant Diagnosis	
Case finding & Testing	PICT	VCT		
Treatment	OI treatment	ART initiation	ART monitoring	ART refill
Patient Education/Counselling	Pre-test	Post-test	Adherence	
Community	Contact authorities	Health promotion	Case finding, lost to follow-up tracing	Community support groups
Laboratory	RDTs	(Near) Point of Care instruments	Instruments at Project lab	Instruments at Referral lab
M&E	Paper-based data collection & reporting		Electronic data collection & reporting	

TB care

Component	Activity options			
Prevention	Administrative measures	Environmental measures	Personal measures	Latent TB treatment
Case finding & Testing	Passive case finding	Active case finding		
Treatment	Drug-Sensitive TB	(Multi) Drug Resistant TB		
Patient Education/Counselling	Patient education	Adherence counselling		
Community	Contact authorities	Health promotion	Case finding, lost to follow-up tracing	Community support groups
Laboratory	Microscopy	(Near) Point of Care instruments	Instruments at Project lab	Instruments at Referral lab
M&E	Paper-based data collection & reporting		Electronic data collection & reporting	

The following pages contain summarized descriptions of each component and the activity options. A table will show the building blocks of the activities and the text beneath the table will explain the levels of complexity for implementation, ranging from basic to more comprehensive.
The building blocks are: What/Where/For Whom/When and Who:

Building Blocks

What	A description of the activity
Where	The location within or outside the health facility where the activity can be delivered
For Whom	The target population who the activity is intended for
When	When the activity should be implemented within the continuum of care or how often should be implemented/done
Who	Who could be considered responsible to do the activity

For more detailed (and/or clinical) information on each option, please refer to the clinical and programmatic guidelines that are mentioned throughout this document. Their links and references can also be found in the list of resources in annex 5.
For examples of HIV/TB integration components in existing projects, please find some case studies in annex 7.

Prevention

HIV/TB prevention intends to prevent people acquiring HIV or TB infection.
Guidelines to refer to when implementing: IPC, PSEC and HIV/TB clinical guidelines (annex 5).
Is any special training needed? Trainings are integrated in HIV/TB trainings - see HR and training in part III. There are specific Wat/San training courses for TB infection control.
Are there special materials needed? Yes, general standard precautions materials and supply items such as condoms and N95 respirators and HIV or TB (prophylactic) drugs.

General note: Regardless of HIV/TB integration, all projects should have (as a minimum) the basic infection prevention control and practices (IPC) in place. This includes standard precautions (formerly known as universal precautions), hand hygiene, safe blood transfusion, STI treatment, condoms distribution and PEP for staff and victims of sexual violence. Details of the general IPC measures are not included in this document. For more information please refer to the IPC guidelines[8].

Prevention HIV

	Condoms	**PEP:** post-exposure prophylaxis	**PrEP:** Pre-exposure prophylaxis
What	Offer condoms	ART drugs to prevent HIV	ART prophylaxis Monitoring package
Where	Health facility, Outreach	Health facility	Health facility
For Whom	All people who need them	Needle accidents / occupational exposure and SGBV survivors	High exposure risk, discordant couples
When	All contacts health facility / outreach	Within 72 hours after exposure to HIV	At least 7 days prior to exposure/after a negative HIV test result
Who	Counsellors, lay workers / peers, etc.*	Nurse, Clinical Officer	Nurse, Clinical Officer

* Or have condoms available and displayed in the facility.

With regards to HIV prevention, one of the most basic options is to offer condoms. Post-exposure prophylaxis[9] is part of the basic prevention and should be in place in any project. Pre-exposure prophylaxis[10], e.g. for discordant couples or people with a high exposure risk, requires ongoing counselling and monitoring. Also remember that Anti-Retroviral Treatment (ART) itself works as prevention: in HIV infected patients on ART who are virologically undetectable, HIV is un-transmittable[11].

PMTCT: Prevention of Mother to Child Transmission

[8] https://apps.who.int/iris/bitstream/handle/10665/251730/9789241549929-eng.pdf;jsessionid=AA7FD1D166B9ABA4EDFE21F9A345A811?sequence=1

[9] https://apps.who.int/iris/bitstream/handle/10665/277395/WHO-CDS-HIV-18.51-eng.pdf?ua=1

[10] https://apps.who.int/iris/bitstream/handle/10665/186275/9789241509565_eng.pdf?sequence=1

[11] https://samumsf.org/en/resources/hiv/viral-load-monitoring

PMTCT activities are aimed at preventing the transmission of the HIV virus from a mother to her child during pregnancy, delivery or breastfeeding.
Guidelines to refer to when implementing: PMTCT guidelines (annex 5).
Is any special training needed? Training on PMTCT is integrated in basic HIV on-line training and in SRH training (for midwives).
Are there special materials needed? ART for mother and exposed child, lab materials for PCR DNA, education materials such as flip charts; PMTCT protocol for staff.

PMTCT: Prevention of Mother to Child transmission of HIV is the most important and efficient way of preventing newborn babies from acquiring HIV infection from their mother. The tables below indicate what is needed to set up PMTCT. The service is usually connected to the ANC clinic, delivery services and links the mother-baby pair to the mainstream HIV component and under 5 clinic services. From the programmatic point of view we split here the services (1) dedicated to identification of HIV+ mothers, their treatment and preventive measures for the babies and (2) dedicated to early identification of babies who are infected with HIV as a result of vertical transmission to start them on treatment.

Objectives PMTCT (1)	**Identification HIV+ pregnant women**	**Prophylaxis during pregnancy**	**Prophylaxis during delivery**		**Prophylaxis during BF**
			Mother	**Baby**	**Mother and baby**
What	HCT	ART initiation Patient Education ART refill	ART continue	ARV combination according to MSF/MoH guidelines	Triple ART or ART prophylaxis regimen for the baby, Patient Education HCT to women not tested previously Consideration to HCT for HIV negative women
Where	ANC, Maternity	ANC care	Maternity	Maternity	Post-Natal care EPI (vaccination program) U5 program (if existing)
For Whom	All pregnant women	HIV+ pregnant women	HIV+ pregnant women	Babies born from HIV+ women	Mothers HIV+ and babies born from HIV+ mothers
When	ANC 1st visit. Urgent PMTCT if not tested.	Initiation: ANC asap after diagnosis Refill: monthly	At delivery	Immediately after birth	From birth: 6 weeks for low risk and 12 weeks for high risk
Who	Midwife /counsellors	Midwife/counsellor	Midwife/counsellor	Midwife	Nurse

PMTCT (2): Early infant diagnosis (EID)	NAT @ birth	NAT @ 6weeks and @9months	18 months
What	PCR testing (optional)	PCR testing, @ 6wks & 9 months: CTX and EPI	Rapid HIV test
Where	Maternity: withdraw of blood and lab for the PCR testing	Post-natal care Consultation follow up HIV exposed babies	Post-natal care Consultation follow up HIV exposed babies
For Whom	All babies born from HIV+ mothers	All babies born from HIV+ mothers	All babies born from HIV+ mothers
When	At birth	First at 4-6 weeks Second at 9 months	At 18 months old (and after 6 to 12 weeks of breastfeeding cessation) if earlier NAT is negative or not accessible
Who	Nurse, midwife, lab technician	Nurse, clinical officer, midwife, lab technician	Nurse, clinical officer, midwife, lab technician, counsellors

The recommendations on PMTCT regarding ARV combination for prophylaxis of exposed babies can have different options depending on the context and challenges on administration. We suggest you follow the regimen recommendations from MoH and discuss with your HIV referent to identify what strategy fits best with MSF recommendations.

Likewise, while testing the exposed infants is a key component of PMTCT, access to virological-based testing (ie. Xpert machine) might not be available. In those cases, consider referral of samples (using dry blood spot -DBS) or HIV rapid testing after discussion with your HIV referent.

Partner testing in antenatal care can also be done using HIV self-testing (HIVST). HIVST is an acceptable and effective tool for increasing partner testing and disclosure[12] (WHO, 2018).

[12] https://www.who.int/hiv/pub/self-testing/strategic-framework/en/

Prevention TB

	Administrative measures	Environmental measures	Personal measures	Management of LTBI
What	Patient flow and triage, facility infection control policy	Open windows Airflow	Masks for patients, N95 masks for staff and caretakers	Contact tracing, screening of active TB infection and treatment of latent infection/TB preventive therapy (TPT)
Where	Health facility	Health facility Houses / community	Health facility and community	Health facility and community
For Whom	All patients, visitors and staff	All patients + family members, visitors and staff	PWTB, staff and contacts	Contacts of PWTB HIV patients
When	All the time	All the time	While infectious. All presumed PWTB;	After diagnosis TB of index case. Routinely in HIV patients;
Who	Infection control focal point and MAM	Infection Control focal point and MAM All staff	Health facility staff	CHW (identification), Nurse/CO/MD (treatment)

Basic TB transmission prevention measures start with organizing the health facility itself, minimizing the chance on transmission in treatment rooms and waiting areas. In hospitals it is advisable to guarantee space for separated and well ventilated rooms for isolation of suspected TB patients (more infective) and separately, confirmed TB patients on treatment. Ensuring a safe air flow in the building and triaging patients with cough are good examples of administrative and environmental measures that can be taken. Consult the Water and Sanitation advisor or IPC reference in your section. There are specialist courses available for TB infection control. Also see guidance on segregation of TB patients in the MSF TB facility handbook[13].

An example of basic personal protection measures is the use of surgical masks by suspected or confirmed patients to reduce the amount of droplets/bacilli released into the air and potentially contaminating other people. N95 filtrators are masks for staff and caretakers to protect them from acquiring TB during consultations and other care activities.

While masks are important, it is imperative to remember that t**he most effective measure to reduce TB transmission is to identify, confirm and initiate effective TB treatment ASAP in PWTB.**

More information on other TB prevention related topics and its technical or clinical management e.g. BCG vaccination, can be found in the TB guidelines (annex 5).

Managing individuals who have been exposed to TB and monitoring eventual evolution to TB after contact, contact tracing and follow up are very important activities. By investigating and testing the people in close contact with the patient, TB might be discovered and treated early. Individuals with latent TB infection can

[13] MSF, Tuberculosis Health Facilities Design Handbook, Médecins Sans Frontières, 2017

also be identified and treated accordingly[14]. See also the TB testing chapter on active and passive case finding and contact tracing.

Case Finding & Testing

In this case finding & testing chapter we look at how testing can be initiated and strategies to find people who might need to be evaluated for HIV or TB.
Guidelines to refer to when implementing: MoH guidelines in line with WHO, MSF Laboratorium guidelines (see annex 5).
Is any special training needed? Yes, training on how to use the tests and counselling training.
Are there special materials needed? Yes, HIV and TB tests (see laboratory section), information materials, protocols for staff members.

Case Finding & Testing HIV

	PICT: Provider initiated counseling and testing	**VCT:** Voluntary counseling and testing
What	HIV testing Counselling (pre- and post-test)	HIV testing Counselling (pre- and post-test)
Where	Health facility (OPD, IPD, TB ward, Nutrition ward, Maternity and ANC	Health Facilities and community
For Whom	Presumptive/suspected cases such as; SAM, TB, KA, patients with OIs, Pregnant women	General population
Who	Nurse, midwife, doctor, CO identify & refer to counsellor (if trained/allowed to test)	Counsellors / lay workers (if trained), medical staff, **patient (self-HIV test)**

A confirmed HIV-diagnosis is required prior to starting HIV treatment[15]. This is simple and feasible to do with rapid diagnostic tests (RDTs) (always within a validated testing algorithm) and pre- and post-test counselling.

Testing for HIV can be focused on specific vulnerable groups if the capacity to screen and test is limited, e.g. PWTB, pregnant mothers in ANC, children in nutrition programs and very ill patients in IPD and OPD. In provider-initiated counselling and testing or PICT, the health care provider specifically recommends an HIV test to a patient they suspect to be HIV infected.

If the project has more capacity, the testing and screening can grow to offering testing services to all people who want to be tested, even if they do not feel ill. This is called voluntary counselling and testing or VCT. Best practice level is to have a VCT department where all people from the community can come to get tested and to have ongoing testing services in all the hospital/health facility departments, including OPD, IPD, ANC, etc.

[14] https://www.who.int/tb/areas-of-work/preventive-care/ltbi_faqs/en/

[15] https://www.who.int/hiv/pub/guidelines/hiv-testing-services/en/

HIV Self-testing (HIVST) is an additional approach to take into consideration. HIVST is a process in which a person collects his or her own specimen (ie. saliva), performs the test, and interprets the result, with or without assistance, in a public or private setting. Its implementation increases access especially for hard to reach populations, contexts where HIV stigmatization is still high, and particularly for those currently unreached by existing testing services (key populations, men and young people).

Additionally, HIVST improves testing coverage through the integration of this strategy in clinical services where testing is needed but not routinely provided or where testing is poorly implemented, for example, at high-volume clinics in high HIV burden settings and at STI or family planning clinics[16] (WHO, 2018). Confirmation through the validated national testing algorithm is always required. Currently, the Oral Quick (OraSure) device is validated in the MSF Catalogues for its use on oral fluid samples.

Case Finding & Testing TB

	Passive case finding	**Active case finding**
What	Passive TB case finding and diagnosis	Active TB case finding and diagnosis
Where	Health facility	Community
For Whom	People to be evaluated for TB and their contacts	People to be evaluated for TB and their contacts
Who	Nurse, MDs, COs, trained counsellors	CHW, trained lay workers/peers, TB ambassadors

Passive case finding focusses on people with signs and symptoms of TB arriving to the health facility, which needs to be done as a basic standard in every facility. In the initial phase of a program where capacity is limited, TB case finding can be limited to passive case finding, including evaluating patients with high risk of TB, such as those with HIV, malnutrition, in IPD and known contacts of PWTB.

Where additional capacity is available, active case finding can be done. A team of trained community health workers or lay workers actively go out and look for TB cases and their contacts in the community.

To diagnose TB and MDR-TB, Xpert MTB/RIF is the best clinic laboratory test to have. However, in many places this is not yet available, in which case microscopy in combination with clinical algorithms can be used. A good referral laboratory is usually required to ensure quality testing, including quality control. For more information, see the laboratory chapter.

TB sputum collection itself requires a separate set-up in the health facility with good infection control measures to avoid contamination/accidental transmission (ideally a sputum booth). For more information on (advanced) specimen collection, please refer to the TB clinical guidelines (see annex 5).

Where Chest X-ray (CXR)[17] is available, it can be a useful additional test for those with negative bacteriological tests, and especially in children.

[16] https://www.who.int/hiv/pub/self-testing/strategic-framework/en/

[17] https://www.who.int/tb/publications/chest-radiography/en/ (Chapter 1.4 gives a good overview of the use of chest X-rays) https://www.who.int/tb/publications/Radiography_TB_factsheet.pdf?ua=1

Point of care ultrasound (POCUS) is also being tested as a diagnostic tool for TB. A technique called FASH: Focused assessment with Sonography for HIV/TB, has been developed for resource-constrained settings, to assist in the diagnosis of extrapulmonary tuberculosis (EPTB) and disseminated forms of tuberculosis (TB) in patients with HIV[18]. Please note that to learn and integrate Ultrasound appropriately into an HIV-TB project requires adequate quality training – interested sites can contact their referents and the MSF Diagnostic Imaging Working Group for more advise on this.

Another TB test is the TB-LAM urine test. This is a rapid test strip that uses a urine sample (which is easier to collect than a sputum sample and with less infection control risks). Due to suboptimal sensitivity and specificity, it can not be used as a general screening or diagnostic test for TB, however, it showed improved sensitivity in very sick HIV infected individuals[19]. MSF recommends (in accordance with upcoming WHO recommendations) to use this test for all hospitalized (adult and children) HIV+ individuals and for ambulatory HIV + adults/children with signs/symptoms of TB (regardless of CD4) or advanced HIV: children <5 years old or CD4 <200 or WHO stage 3-4 (irrespective of signs or symptoms).

Treatment HIV

The HIV virus attacks the immune system of the patient (specifically the CD4 cells). Over time and if left untreated, the immune system weakens and the patient becomes vulnerable to other infections (called 'opportunistic infections'), which can lead to death. To prevent this, current guidelines recommend "Test and Treat" without delay. The treatment suppresses the HIV virus so the immune system stays intact.
Guidelines to refer to when implementing: HIV clinical guidelines; MoH, WHO, MSF (annex 5).
Is any special training needed? Yes, medical staff require HIV care training. See Part III for more information on training options.
Are there special materials needed? Yes, HIV drugs and drugs to prevent and treat the opportunistic infections. Laboratory tests are needed for monitoring.

	OI treatment /prophylaxis	**ART initiation**	**ART monitoring**	**ART refills**
What	Medical care package Co-trim prophylaxis	ART (see updated clinical guidance)	Viral Load Lab monitoring (for adverse events) Clinical monitoring (example: weight)	Dispensing the patient's antiretroviral treatment drugs
Where	IPD or OPD	PHC Consultation Hospital IPD	PHC Consultation and Laboratory	Pharmacy fast track Community groups Health Facility ART clubs

[18] https://msfintl.sharepoint.com/:b:/s/msfintlcommunities/DIWG/ESYiQgPbYnZNtzVi_T4xVA4BDYMGryc4304a0l0m6_zCqg?e=eHcSHL (for more references see annex 5)

[19] https://www.who.int/tb/publications/factsheet_lf_lam.pdf New WHO recommendations are coming out soon.

For Whom	Patients with CD4 <200 cells/mm3, Patients admitted to IPD	From targeted groups (very sick, TB, ANC) to all HIV positive	All patients on ART	Stable pts ➔ DSD Unstable pts ➔ clinic Children ➔ DSD Key populations ➔ DSD
When	Immediate after testing / diagnosis	Within 7 days after testing, same day if feasible	3-6 months, then annually	3-6 months / preference
Who	Clinical Officer or Medical Doctor	Clinical Officer, Nurse, Counsellor	Nurse, Laboratory technician	Peer support, Nurse, Counsellor, Pharmacy

Starting ART for all HIV-positive individuals as soon as possible after testing is the current recommendation. The (programmatic) exception that could delay this could be an emergency intervention where the initial focus is to ensure continuity of ART and TB treatment. This can be done by refilling the drug supplies for people already on ART and TB treatment and by identifying and referring individuals with HIV infection who present with severe clinical complications and advanced disease (see Part IV of this manual for more information on special contexts).

MoH protocols can be used where they are updated to the current WHO recommendations. Where there are no updated MoH guidelines, the MSF SAMU HIV/TB guideline 2018[20] and other MSF or WHO recommended guidelines can be used.

As a minimum, a nurse and counsellor can be trained to run an integrated HIV/TB component in consultation with the existing project medical doctor on difficult cases and/or HIV/TB referent where there is no clinical expertise in the project.

There is strong encouragement to ensure the way HIV care is delivered fits the clients' needs and reflects the preferences and expectations to serve the needs of various groups of people living with HIV (PLWHIV) while reducing unnecessary burden on the health system. This is called Differentiated Service Delivery or DSD[21]: e.g. ART delivery can be 'fast tracked' directly from the pharmacy at 3-6 months intervals, removing the need for stable patients to go through consultation if not required. Other alternative models of ART delivery are closer to the community, such as delivery through Community ART Groups (CAGs), adherence clubs or PODI's (in French: 'Poste de distribution de TARV communitaire')[22]. Facilities for admission or referral to appropriate facilities should be available for the very sick patients.

ART drug orders can be challenging; therefore, tools have been developed to help with calculating the numbers and including all the drugs required (see Annex 2). Drugs for Opportunistic Infections (OI's) are ordered within the routine ordering process.

Treatment TB

The aim of TB treatment is to cure the patient from the TB disease. Treatment consists of a combination of drugs, depending on which drugs the bacteria is sensitive for. Sensitive TB is treated for 6 months.

[20] https://samumsf.org/en/resources/msf-hivtb-clinical-guide-2018#

[21] http://www.differentiatedcare.org/Resources/Library

[22] https://samumsf.org/en/resources/hiv/differentiated-art-delivery/art-distribution-point-podi-toolkit

Resistant TB requires longer duration of treatment and different drugs that are often much harder to tolerate.
Guidelines to refer to when implementing: National TB clinical guidelines (updated), WHO, MSF (annex 5).
Is any special training needed? Yes, medical staff require TB care training. See Part III for more information on training options.
Are there special materials needed? Yes, TB drugs. Laboratory tests are needed to monitor the response to the treatment and to test for resistance to anti-TB drugs.

Drug-Sensitive TB:

DSTB	Treatment initiation	Refills	Monitoring
What	Anti-TB treatment (ATT) in FDC (fixed dose combination)	Self-administered treatment (SAT) of ATT	Clinical follow-up Side effects: clinical & lab if available
Where	Project health facility	Health facility or community	Project health facility
When	After clinical or lab diagnosis (Xpert MTB/RIF and/or smear)	Every 1-2 months Consider longer refills for mobile populations / contingency situation	After 2 weeks, 2 months (before continuation phase), and 5 months (optional last visit at 6 months)
Who	Nurse, clinical officer, MD	Nurse, clinical officer, CHW	Nurse, clinical officer

Drug-Resistant TB:

MDRTB	Treatment initiation	Drug Delivery		Monitoring
What	Short MDRTB regimen (ideal in unstable settings) Long MDRTB regimen with oral drugs (if short course is contraindicated)	Daily DOT Daily Injection	Monthly supply (SAT) Supervised DOT Daily injection	Clinical follow-up Culture and smear for treatment response, DST; Side effects: audiometry & creatinine if injectable. ECG if drugs increase QTc. Lab (transaminases, TSH)
Where	Health Faculty	Health facility	Home /Community	Health facility
When	After lab diagnosis (Xpert MTB/RIF and/or TB culture)	During injection phase	Throughout treatment period	Monthly

Who	MD, clinical officer, nurse	Health care worker	CHW, family member or lay worker	MD, clinical officer, nurse

As a minimum, projects need to have fixed dose combination (FDC) Drug Sensitive TB (DSTB) drugs for adults and children. The fixed dose combination makes for easier prescription for both clinician and patient. For Drug Resistant TB FDC's are not available. There are TB drug order tools available to help with the calculation and ordering (see annex 2).

The treatment can be started on clinical suspicion alone, if diagnostic tests are not available (see annex 5; TB guideline). Of course, confirmation by laboratory testing, via Xpert machine or microscopy is much more preferable, either in the project or by referral. Please note that lab confirmation is more difficult in children and those with severe immunosuppression, regardless of access to Xpert testing. In this case a clinical algorithm and timely treatment is lifesaving.

During treatment, clinical condition, adherence and side effects need to be monitored.
DSTB drugs need to be decentralized as much as possible to the community by self-administered treatment (SAT), where possible supervised by family member or community worker after proper patient education.

All regular projects should aim to have the possibility to diagnose DRTB and either to start or refer for treatment. Short MDR treatment (9-12 months) is the preferred option in unstable settings. There is currently a lot of progress being made to improve regimens to treat MDR-TB avoiding injectables (all oral) and in shorter regimens; discuss with your referent at the moment of deciding MDRTB treatment regimens.

MDR TB Drug delivery can be done either at the clinic or in the community (at home) depending on the convenience to the patient. At the clinic DOT can be combined with the daily injection. MDR TB drugs can also be delivered in the community from the start including injection where a community worker is capable of giving the daily injection; in this case DOT can be supervised by the community worker and/or family member.

Extensively drug resistant TB (XDR) and other resistant patterns are rare in most settings, however where such cases are encountered, consult your HIV/TB referent.

Note on Nutrition

People with HIV/TB are often malnourished, and severe malnutrition is an independent factor for mortality. Nutritional supplements could support their recovery by strengthening their immunity and improving weight gain and muscle strength.

Food support (ration) for all could involve an energy and protein supplement that is based on locally available food for a fixed period of 2 months after which continuation can be considered for those with SAM/MAM depending on the Body Mass Index (BMI).

BMI = Weight (kg) / (Height (m))2

Please refer to the MSF nutrition guidelines for clinical guidance (inclusion criteria, rations, etc) on nutrition and HIV and TB. There is also a separate chapter on nutrition in the SAMU guideline (annex 5).

Patient support, Education and Counselling (PSEC)

PSEC PSEC is a necessary component of quality care of patients,, but there are a few specific points in the cascade of care when patient education & counselling is extra important. These are the moment a patient finds out if they have an HIV or TB infection and when adhering to the treatment regimen becomes difficult for the patient.
Guidelines to refer to when implementing: HIV/TB clinical guidelines, PSEC (annex 5).
Is any special training needed? Yes, there are trained counsellors, but also other healthcare and lay workers can provide counselling. They need to receive training on patient education & counselling skills and ongoing support and supevision.
Are there special materials needed? No, but it definitely helps to have good education materials available, like e.g. HIV and TB flip charts and protocols available.

PSEC HIV

	Pre-test information & counselling	**Post-test counselling**	**Patient education and adherence counselling**
What	Information about HIV	Counselling clients on the test result	Educate patients to self-manage their treatment and their disease
Where	Waiting room, consultation / counselling room	Private room in health facility	Health facility rooms and/or community
For Whom	Group and individual	Individually, couples or youth with parents,	Group and individual
When	Before HIV testing	After HIV testing	During HIV treatment according to person's needs. If problems with adherence. In all suspected virological failures (enhanced adherence counselling) Disclosure to children at the appropriate age needs to be done
Who	Medical staff, counsellors, CHWs and trained lay staff members	Medical staff, counsellors, trained lay staff members, expert patients	Nurses, counsellors, pharmacy dispensers, CHW's, trained lay staff members

Pre- and Post-test counselling are integral parts of testing for HIV. The pre-test information session when done in groups can save time. Post-testing is always done individually and in private, by a counsellor or lay worker who has been specifically trained to support the patient after hearing the result of the test.

Where capacity is not enough, testing and thus counselling can be limited to specific vulnerable groups such as PWTB, Kala Azar patients, patients with Opportunistic Infections, malnourished children (SAM), children with faltering growth, pregnant women, patients with STIs, SGBV, AEB and IPD patients (see also the chapter on testing).

Patient education and counselling is part of the HIV treatment to make the patients able to manage their treatment and to live with their disease. This can be done by various people who are involved in the treatment, such as nurses and counsellors, but also pharmacy dispensers. And at community level, where CHWs and patient support groups can have a great impact on the support of the patient. See the guidelines on PSEC in annex 5 for more information.

PSEC TB

	Health education	Patient Education and adherence counselling
What	Education about TB and testing	Education about TB medication & self-management of disease
Where	Health Facility waiting rooms (OPD, TB clinic, Nutrition ward, HIV clinic, IPD) Community / family TB contacts	Counselling and Consultation rooms, Dispensary
For Whom	Group & individual patients in the health facility (general OPD, HIV+, Nutrition, IPD)	Group and individual patients on TB treatment: DS / DR and possibly caregivers and family members
When	Before, during or after consultation and during home visits	During TB treatment
Who	Health educator (trained lay worker), CHW, Counsellor, Nurse	Counsellor, nurse, dispenser

As with HIV, and with respect to IPC measures, health education about TB can be done in a group session to save time if needed. The health education can focus on certain priority groups first (such as staff members, and high-risk groups) and later elaborate to include all patients in the health facility and people in the community.

Patient education and Adherence counselling is an important part of the TB treatment. The patient needs to be **encouraged and supported** to complete their often-challenging treatment in order to achieve optimal treatment outcomes
. Adherence is also important to prevent drug resistance and prevent transmissions. Having a lot of support from care providers and the community is much needed as the treatment often causes side effects, which increases with the more complicated drug regimens for (M)DRTB.

Note: there are TB flip charts available to help with the health education sessions[23].

[23] https://samumsf.org/en/resources/tb/dr-tb/msf-tb-patient-education-and-counselling-flipchart-ds-tb-mdr-tb-xdr-tb-messages

Health Promotion (HP) & Community Engagement (CE)

With HP & CE the community is engaged and empowered from the start. This is important for the acceptance and uptake of the health program and prevention activities. This chapter also includes; service promotion, sensitization activities at community level, meetings with community/patients networks/ community influencers, active case finding, serch for missing appointments and lost to follow up and different models of care at community level.
Guidelines to refer to when implementing: SAMU toolkit on differentiated models of care (CAGs, PODIs, etc) (annex 5).
Is any special training needed? Basic training on HIV/TB and patient education/counselling should be offered to HP team by medical staff. The need for ongoing support and supervision by a supervisor.
Are there special materials needed? Any health promotion materials need to be adapted to the local context.

	Contact with authorities and community/networks/stakeholders.	**Health Promotion including focus group discussions**	**Active case finding, missed appointments, lost to follow-up and (household) contact tracing**	**Community support groups & differentiated models of care**
What	To Discuss and /propose activities	Messages on HIV/TB Focus group discussion	Prevent defaulting and infection transmission	CAGs, adherence clubs, PODIs, etc
Where	Community	Community	Community	Community
For Whom	Local authorities Community influencers and groups	Community members	PLWHIV / PWTB	PLWHIV / PWTB
Who	CHW, project team members	HP/CE supervisor, CHW, Nurse, lay worker, PLWHIV, TB ambassadors	CHW, Nurse, Lay workers, PLWHIV, TB ambassadors	PLWHIV, TB ambassadors

At the very basic level, health promotion and engagement with community can be limited to meeting with the authorities, provide simple messaging at community level, health promotion at the health facility and tracing patients who have missed appointments by a lay worker, community health worker or PLWHIV.

There is a range of health promotion methods that can be used, such as radio messages, debate, leaflets, etcetera. (see annex 5 for reference documents).

When the project HIV/TB capacity increases, full HP&CE on HIV/TB activities aimed at increasing awareness and reducing stigma can be organized through a trained HP&EC team. The ideal is for the team to organize focus group discussions to have a better understanding of the HIV/TB perceptions at the community and plan the HP&CE strategy accordingly.

This team can also help to organize community HIV/TB activities such as support groups and community-based ART delivery models, such as community ART groups (CAGs), points of distribution in community (PODI) or adherence groups. These differentiated models of delivery are aimed at decentralizing HIV/TB care and improving retention of patients on ART.

Laboratory

Laboratory: In this chapter we give an overview of the different tests that are used in HIV/TB care. There are different levels of complexity.
Guidelines to refer to when implementing: MSF Diagnostic Packages, WHO testing guidelines , HIV and TB clinical guidelines (see annex 5).
Is any special training needed? Yes, some tests can be done after receiving instructions (like RDTs), operating lab instruments is done by trained lab technicians, who need to receive additional training if instruments are new or updated.
Are there special materials needed? Yes, the tests, lab instruments, reagents and cartridges, etc.

In terms of testing in the field, MSF generally considers the following levels of healthcare[24], with the following human resource assumptions:

1. Basic health care centre or mobile clinic with no laboratory services (level 1): Nurses and/or clinical officers/MDs carry out diagnostic testing. No specialized laboratory staff is routinely present.
2. Primary health care clinic with a small laboratory (level 2): National laboratory staff (junior and/or senior laboratory technician) is present.
3. Hospital with a general in-patient and out-patient department (level 3 – level 4 if referral lab): Senior laboratory technician is present (national or expat). Radiographer / X-ray technologist present.

Each of these levels will have a corresponding menu of tests that is feasible and cost-effective at that level. These tests range from the most basic tests known generally as RDT, to more elaborate tests including nucleic acid detection tests and culture / antibiotic susceptibility testing (the latter being generally referred to national or international reference laboratories).

While certain tests are clearly restricted to higher-level laboratories (hospital level or referral laboratories), others can be used more widely, although their availability can/will depend on volume of testing. If projects choose to send samples to another facility for testing, a reliable sample collection & transport system needs to be set up and must be monitored for efficiency.

The tables below summarize the main types of tests available for HIV and TB in MSF settings at the different levels of healthcare. For testing in referral laboratories, the laboratory referent of your section should be consulted for advice and validation.

IMPORTANT CONSIDERATIONS!
Algorithms: all the tests mentioned do not function in isolation, they have a place in determined algorithms, which needs to be adapted to the context, in agreement with local authorities and context, HIV/TB referents, and laboratory referents (see guidelines).
Xpert machine: this instrument can be used for both TB (TB diagnosis and MDRTB/Rif) and HIV (VL and NAT for EID), by using different cartridges.

[24] Described in the MSF diagnostic packages document: https://samumsf.org/sites/default/files/2019-07/Diagnostic%20packages%20FINAL%20update%2029.08.2017.pdf

Laboratory HIV

! Note: The table below has been turned, in contrast to the earlier tables (due to the number of tests).

Tests	Purpose of test	Where	Who	When
HIV RDTs	To screen for and diagnose HIV	Levels 1, 2 and 3.	Trained staff member	To screen for HIV infection and confirm HIV status when used in an algorithm according to WHO recommendations.
CD4 testing (several methods including PIMA or other instruments)	To monitor the amount of CD4, which gives an indication of the immune status and disease progression	Level 2 for vertical projects using PIMA, or level 3 with PIMA or benchtop instrument, depending on test volume.	Trained laboratory staff	CD4 testing is used in combination with clinical assessment to evaluate severity of disease.
Viral Load testing (several near POC methods, such as Xpert HIV-1 VL, SAMBA or laboratory-based / referral)	To monitor the amount of virus (by quantification of RNA) in the blood to indicate a good response to treatment, failure or adherence issues	At level 2 when Xpert available (vertical programs) At level 3 with Xpert HIV-1 VL, or 4 (DBS) when test volume is lower.	Trained laboratory staff	Every 6 to 12 months depending on resources. For cases with first VL> 1000 copies/ml, the test is repeated after 3 months to confirm virological failure after adherence counselling.
Early Infant diagnosis (EID) (several methods including Xpert HIV-1 Qual or laboratory-based / referral)	Early diagnosis of HIV-1 infection in infants <18 months of age by detection of pro-viral DNA	At level 2 when Xpert available (vertical programs) At level 3 with Xpert HIV-1 Qual, or 4 (DBS) when test volume is lower.	Trained laboratory staff	At +/- 6 weeks and at 9 months. Additionally, at birth (practically 48 hours) if resources and program allows.
Cryptococcal antigen testing (CrAg), strip format RDT	To screen for cryptococcal infection	Level 2 if clinical suspicion or CD4 testing available, level 3 in all cases	Trained medical staff and/or lab staff	CD4 < 200 cells/mm3 and/or stage 3 and 4, on suspicion of cryptococcal meningitis
TB-LAM, strip format RDT	To screen for TB antigen in urine	Level 2 if clinical suspicion or CD4 testing available, level 3 in all cases	Trained medical staff and/or lab staff	CD4 < 200 cells/mm3 and/or stage 3 and 4 -> See clinical guideline recommendation.
Creatinine (TDF), Hb (AZT), liver enzymes (NNRTI/PI)	To monitor side-effects of HIV drugs	Level 3.	Lab technician	During treatment
HIV Genotyping (several types of laboratory-based assays)	To diagnose mutations indicative of resistance to ART	Level 4 (referral), generally on DBS.	Higher level Lab technician	Second line failures, selected cases after input of HIV referent

For more details on each test please see the laboratory guideline and consult your laboratory referent when you have questions.

In (short) summary, there are tests in HIV care to diagnose HIV and Opportunistic Infections (OI's) and to monitor the progress and potential side-effects of the treatment that is given.

To **diagnose HIV**, rapid tests (RDTs) can be used inside an algorithm adopted to the local situation. Rapid tests are relatively easy to use after some instructions and do not need a laboratory, other than for quality control.

In recent years the HIV Viral Load test (using the Xpert) and other near POC tests have become more and more available to the field and are nowadays considered essential **to monitor** treatment effectiveness. The instrument needs a laboratory with air conditioning and trained staff, but the good news is it can do tests for both HIV and TB. It measures the amount of the HIV virus genome (RNA) in a sample, also called the 'viral load'. It indicates whether someone has detectable virus and its amounts in blood, to see if the treatment is working/adhered to. The Xpert can test with two different cartridges for HIV; one for VL and a different one for EID, and one cartridge for TB (see chapter Laboratory TB).

If a facility does not have an Xpert for testing, samples can be transported using DBS: Dry-Blood-Spot: a blood sample dried on a piece of absorbent paper, making it safe to another facility, for the following tests:

- For Expert Qual in the case of Early infant diagnosis (EID)
- For viral load (VL) using PCR.

Note: DBS samples for VL cannot be used on GeneExpert.

Another important test used to evaluate severity of disease is the CD4 test. This test measures the amount of CD4 white blood cells (the ones that are attacked by the HIV virus). The number of CD4 cells left indicate the status of the immune system. When they are very low in number, the immune system of the patient is not working well anymore, leaving the patient vulnerable for 'opportunistic' infections (OI's). CD4 testing can be done with a near point of care machine (ie. PIMA) in most settings, and is highly recommended -> but not having the machine should not prevent programs to test and treat HIV.

Two important opportunistic infections can now be tested with a rapid test (RDT).
CrAg tests for cryptococcal infection in serum and cerebrospinal fluid and TB-LAM tests for TB infection by using a urine sample. Instructions and limitations for these tests do apply - please refer to the lab guidelines and MSF and WHO recommendations for more information.

Laboratory TB

Tests	Purpose of test	Where	Who	When
Smear microscopy	To diagnose and monitor TB	Level 2 if vertical program with high volume, level 3	Lab technician, microscopist	DSTB: baseline, month 2 and 5; MDRTB: monthly;
Xpert MTB/RIF test	To diagnose TB, also MDRTB	Laboratory or referral lab Level 2 if vertical program with high volume, level 3	Lab technician	HIV patients, relapse, suspicion of failure; consider as baseline test; in children or EPTB
TB culture and DST	Confirm DRTB and adjust treatment accordingly	Level 4 (referral)	Lab technician	When Xpert shows RR or in any presumed DRTB; for follow-up of MDR-TB patients under treatment
Liver enzymes	To monitor side-effects	Level 3	Lab technician	In case of side effects
Creatinine, ions, TSH	To monitor side-effects of DRTB drugs	Laboratory	Lab technician	Routinely

In (short) summary, for TB there are tests to **diagnose** and **monitor** the disease itself and potential side-effects of the drugs. But it is also very important to know whether the TB bacteria is resistant to certain drugs or not, so clinicians know which drugs to use to treat the patients with.

Currently the Xpert device is the recommended test for projects to implement, because it can diagnose TB and also test for rifampicin resistance (the anti-TB drug that will define MDRTB) in a few hours. However, some projects might not (immediately) have Xpert available. Smear microscopy can then be used (as a minimum) for TB diagnosis, combined with clinical diagnostic algorithms to diagnose smear negative TB.

Smear microscopy can diagnose TB, but cannot determine if there is drug resistance or not. If more testing is needed to know for which drug the bacteria is still sensitive, a sample will need to be send to a level 4 laboratory or a a supra-national reference laboratory (SNRL) for culture (results can take several weeks).

If there is no Xpert available in the project or when tests need to be send for culture to a referral lab, safe sample referral needs to be set up. Follow the internationally recommended guidelines for transportation of biological samples[25].

The collection and preparation of samples needs a space that follows the infection control measures (IPC)[26].

Monitoring & Evaluation

[25] https://www.who.int/csr/emc97_3.pdf

[26] https://apps.who.int/iris/bitstream/handle/10665/311259/9789241550512-eng.pdf

MSF programs are monitored and evaluated to ensure accountability and to be able to learn from the activities and plan forward. M&E can be done in different ways and levels of complexity.
Guidelines to refer to when implementing: please refer to your section's HIS and the MoH requirements for M&E.
Is any special training needed? Yes, especially in case of electronic databases, data entry clerks will need to be trained in using the program.
Are there special materials needed? Yes, computers and forms/databases may need to be printed out or made available electronically.

All projects with HIV/TB activities need to collect a minimum set of indicators for monitoring of the quantity and quality of the activities.

Where there are MoH patient monitoring and evaluation tools, these will need to be used and sometimes strengthened (TB register, ART register, ANC register, PMTCT register).
If there are no national tools, the project can use standard WHO patient's HIV and TB cards and simplified registers.

M&E tools and workload can be adapted to the project needs and available resources. A paper-based register is enough to start with any HIV/TB component. For a more elaborate level there are electronic databases to collect data safely and generate automatic reports and analyses. This requires training of medical staff to use the program and training data entry clerks to enter the data. Of course, reliable electricity and often IT support may be required to install, maintain, and solve any issues.

HIV Monitoring & Evaluation

	Paper based	**Electronic**
What	**Data collection:** Patient ID card, treatment card, adherence monitoring card, patient files. Facility registers: Patient Education/Counseling, ART register, PMTCT register, Lab register. **Paper based Reporting:** Manual data extraction for Monthly reporting (MSF) and Quarterly reporting (MOH)	**Data collection:** **All Paper-based plus:** Data collection forms Computer software/database DHS1 (line list), DHS2 (EMR e.g. Tier.net); **Electronic Reporting:** Automatic reports, Data analysis and Annual reports
Where	HC facility	Facility
For Whom	All patients entered in component	All patients entered in component
When	Every appointment and/or when indicated	Every appointment and/or when indicated
Who	Nurse, clinical officer, counsellor, lab assistant	Data entry clerk

TB Monitoring & Evaluation

	Paper based	Electronic
What	**Data collection:** Patient ID card, treatment card/adherence card, +/- patients' files. Facility registers: TB register, register of presumed cases, contact register, lab register. **Reporting:** Manual data extraction for periodical routine reporting (MSF and MoH)	**Data collection:** **All the paper-based plus:** Data collection forms Computer software, linelist, EMR **Reporting:** Automatic reports for periodical routine reporting (MSF and MoH), Data analysis and Annual reports
Where	Facility	Facility
For Whom	All confirmed PWTB, suspects and contacts traced	All confirmed PWTB, suspects and contacts traced
When	At appointment and/or when indicated	At appointment and/or when indicated
Who	Nurse, Clinical Officer, Lab assistant	Data entry clerk

Annexes

ANNEX 1: Assessment Tools

HIV/TB Context Assessment at Country level:

COORDINATION / COUNTRY LEVEL:	**HIV**	**DSTB / DRTB**
COUNTRY POPULATION		
EPIDEMIOLOGY		
HIV Prevalence in the general population		
HIV Prevalence in different risk groups		
HIV: Coverage: nr adults in care/ % on ART		
HIV: Coverage: nr children in care/ % on ART		
TB incidence in the country		
TB: % MDR and XDR among TB cases		
FUNDING MECHANISMS (*Donors, partnerships, and coordination mechanisms)*		
NATIONAL POLICIES & GUIDELINES		
National Policies		
National Clinical Guidelines		
National Strategic Plans		
TB: DOT recommended: strict/flexible/N		
Contingency planning in place: Y/N		
Vulnerabilities (Identified instability factors that influence HIV/TB understanding, transmission, prevention in the community)		

HIV-specific Assessment in Catchment area / Project:

HIV SERVICE AT PROJECT LEVEL		
	MOH / OTHER ACTORS	**MSF PROJECT**
Availability of ARV drugs:		
First line: Y/N		
Second line: Y/N		
Third line: Y/N		
Any documented stock ruptures Y/N		
Can drugs be stored securely? Y/N		
HIV diagnosis:		
Current WHO testing algorithm updated? Y/N		
Is CD4 testing available? Y/N		
Is Viral load monitoring Routinely done (everybody) or Targeted? (few)		
Patient Education, Support and Counselling:		
Any patients support, education and counselling being done for people under treatment? Y/N		
Is Home based care available? Y/N		
HIV & TB integration:		
Are all HIV patients screened for TB? Y/N		
Is HIV and TB care provided in the same consultation(s)? *If not, where is TB care for HIV patients provided?*		
Models of care:		
Are there any differentiated models of care? Y/N		
Appointment spacing? Y/N		
Fast track? Y/N		

Community ART groups? Y/N		
Is inpatient care available? Y/N		
Is palliative care available? Y/N		
Community engagement:		
Is there a system of tracing HIV patients with missed appointments in place? Y/N		
Is there an association of HIV patients at community level? HIV Support groups or PLWHIV Group or Association: Y/N		
HIV Prevention services:		
Is PMTCT provided? Y/N		
Is Safe blood transfusion available? Y/N		
Are condoms are available and accessible to clients? Y/N		
Is voluntary male circumcision provided? Y/N		
Monitoring and Evaluation:		
Are there HIV registers and patients record in place? Y/N		
Is HIV reported on quarterly basis? Y/N, if not how often?		

TB-specific Assessment in Catchment area / Project:

TB SERVICE AT PROJECT LEVEL		
	MOH / OTHER ACTORS	**MSF PROJECT**
Diagnosis		
Microscopy: sputum smear Y/N		
Culture : avalable : Y/N *DST avalable : Y/N* *Where: MSF, national, SNRL*		
Xpert: available: Y/N *Where: PoC, referral to other hospital, referral to capital*		
Hain MTB plus, SL : avalable Y/N *Where: national, SNRL*		
TB LAM: available: Y/N *Where: IPD, OPD, both*		
CXR: available Y/N		
Diagnostics for children available Y/N: *Sputum induction* *Naso-pharyngeal aspirate* *Gastric lavage*		
Treatment		
Use of QA drugs: Y/N		
Have stock ruptures been documented: Y/N		
Treatment of MDR TB: Y/N		
Shorter MDR TB regimen: Y/N		
Use of new pediatric formulation: Y/N		
Access to new drugs: *Bedaquiline: Y/N* *Delamanid: Y/N*		
Drug delivery: DOT: facility, community, home-based *SAT: Y/N*		
HIV-TB co-infection		
Access to VCT: Y/N		
Access to ART: Y/N		

Infection control and prevention measures		
Written TB infection control assessment and plan? Y/N		
IPT: Y/N *Group of patients: < 5, < 15, HIV, contacts of TB*		
PSEC and HP activities		
Is patient support, counselling and education regularly done to presumed or confirmed TB patients: Y/N		
Community sensitization about TB: Y/N		
Contact tracing: Y/N		
Tracing patients with missed appointments: Y/N		

Project Assessment:

ASSESSMENT PROJECT & PATIENTS	
CONTEXT	
Stable or unstable context? Conflict?	
Urban, rural, or other setting?	
Migration: presence of displaced, nomadic populations or migrant workers?	
Community engagement? Y/N	
Stigma issues? Y/N	
PATIENTS	
Are there groups with a higher risk of infection with HIV or TB in the project catchment area? Y/N	
If yes, which groups?	
DEPARTMENTS	
List the departments of the health facility and project.	
Laboratory: what level and what kind of tests are available on project level?	
HUMAN RESOURCES	
List the human resources in the project	
Inventory of the levels of training in HIV and TB	
Assess the need for training in HIV/TB	
REFERRAL OPTIONS	
List all other actors in vicinity of project	
Is safe sample referral possible?	
Partnerships and coordination mechanisms	
Describe gaps in service provision in your setting, consider both stable and unstable times	
What is the capacity of other actors for emergency supply/contingency plan?	

ANNEX 2: HIV Drug order calculation tool

The HIV drug order calculation tool is accessible through SharePoint link below for staff members with an MSF log-in. If you do not have an MSF log-in username and password, please take up contact with your coordinator or HIV/TB referent.
https://msfintl.sharepoint.com/:x:/r/sites/OCA-dept-PHD/_layouts/15/Doc.aspx?sourcedoc=%7B647B17ED-E89D-44D1-973B-56DF6D243CCD%7D&file=MSF%20OCA-ARV%20tool%202019.xlsb&action=default&mobileredirect=true

ANNEX 3: Intersectional emergency KIT for HIV/TB 50 patients

This annex contains screenshots of the emergency kit HIV/TB 50 patients: continuing and new patients. Please ask your HIV/TB referent for advice on which one to use and the kit documents.

KIT STARTING TUBERCULOSIS and HIV CARE, 6 months 2021

KIT DEMARRAGE PRISE EN CHARGE TUBERCULOSE et VIH 6 mois 2021

KMEDKTHI2S- STD KIT STARTING TUBERCULOSIS and HIV CARE, 6 months 2021
KIT DEMARRAGE PRISE EN CHARGE TUBERCULOSE et VIH 6 mois 2021

Kit updated in 2021. If you need more information, please contact your HIV-AIDS advisor.

INDICATIONS

Kit to integrate TB and HIV care into the global health package.

The kit contains the first order of tuberculosis and ARV drugs for the management of tuberculosis and HIV patients during 6 months. It includes the minimum drugs and tests to start.

SPECIFICATIONS

This kit contains a 6 months order:

- ARV module is calculated for:
  - ARV treatment for 10 adults / month
  - ARV treatment for 3 children / month
  - ARV treatment for 5 pregnant women / month
- TB Medicines for the treatment of 10 adults + 10 children / month during 6 months
- Medicines for some opportunistic infections
- TB sample collection material
- HIV testing materiel

Kit mis à jour en 2021. Pour de plus amples informations, n'hésitez pas à contacter votre référent VIH-SIDA.

INDICATIONS

Kit pour intégrer la prise en charge TB et VIH dans le paquet de soins globaux.

Le kit contient la première commande de médicaments antituberculeux et ARV pour la prise en charge des patients tuberculeux et VIH pendant 6 mois. Il comprend les médicaments et tests minimum pour démarrer.

SPÉCIFICATIONS

Ce kit contient une commande de 6 mois:

- Le module ARV est calculé pour le :
  - traitement ARV pour 10 adultes / mois
  - traitement ARV pour 3 enfants / mois
  - traitement ARV pour 5 femmes enceintes / mois
- Médicaments TB pour le traitement de 10 adultes + 10 enfants / mois pendant 6 mois
- Médicaments pour certaines infections opportunistes
- Matériel de prélèvement de crachats
- Matériel pour dépistage VIH

Included in: KMEDKNUTI3- STD KIT, NUTRITION INPATIENT, 50 patients 2021
KIT NUTRITION HOSPITALISATION, 50 patients 2021

MSF Code	Composed of	Composé de	Tot Qty
L007TUBM08E-P STD	HIV/TB Integration. Interim guidance document.	HIV/TB Integration. Interim guidance document.	1
KMEDMTHIS21 STD	(kit TB & HIV start) ARV MEDICINES 2021	(kit démarrage TB & VIH) MEDICAMENTS ARV 2021	1
KMEDMTHIS22 STD	(kit TB & HIV start) TB MEDICINES 2021	(kit démarrage TB & VIH) MEDICAMENTS TB, 2021	1

MSF Code	Composed of	Composé de	Tot Qty
KMEDMTHIS23 STD	(kit TB & HIV start) MEDICINES for opport. infect. 2021	(kit démarrage TB & VIH) MEDICAMENTS pr infect. opport. 2021	1
KMEDMTHIS24 STD	(kit TB & HIV start) TB SPUTUM COLLECTION 2021	(kit démarrage TB & VIH) COLLECTE CRACHAT TB 2021	1
KMEDMTHIS25 STD	(kit TB & HIV start) HIV tests 2021	(kit démarrage TB & VIH) TESTS VIH 2021	1

End of list

MSF Code	Related Articles	Articles apparentés	Type Relation
KMEDKTHI1S- STD	KIT STARTING TUBERCULOSIS and HIV CARE, 6 months	KIT DE DEMARRAGE PRISE EN CHARGE TUBERCULOSE et VIH, 6 mois	is Replaced by

End of list

MSF Code	Detailed list of articles KMEDKTHI2S-	Liste détaillée des articles KMEDKTHI2S-	Qty
L007TUBM08E-P STD	HIV/TB Integration. Interim guidance document.	HIV/TB Integration. Interim guidance document.	1
KMEDMTHIS21 STD	(kit TB & HIV start) ARV MEDICINES 2021	(kit démarrage TB & VIH) MEDICAMENTS ARV 2021	1
• DORAABLA3TD STD	ABC 120 mg / 3TC 60 mg, disp. breakable tab.	ABC 120 mg / 3TC 60 mg, comp. disp. sécable	3780
• DORADOLU1TD STD	DOLUTEGRAVIR sodium (DTG), eq. 10 mg base, disp. tab.	DOLUTEGRAVIR sodium (DTG), éq. 10 mg base, comp. disp.	1890
• DORADOLU5T- STD	DOLUTEGRAVIR sodium (DTG), eq. 50 mg base, tab.	DOLUTEGRAVIR sodium (DTG), éq. 50 mg base, comp.	1890
• DORALPVR1P- STD	LPV 40 mg / r 10 mg, pellets-in-a-capsule	LPV 40 mg / r 10 mg, granules dans gélule	7560
• DORANEVI1S1 STD	NEVIRAPINE (NVP), 50mg/5ml, oral susp., 100 ml, bot.	NEVIRAPINE (NVP), 50mg/5ml, susp. orale, 100 ml, fl.	30
• DORATELD1T- STD	TDF 300mg / 3TC 300mg / DTG 50mg, tab.	TDF 300mg / 3TC 300mg / DTG 50mg, comp.	9450
• DORAYILN1TD NST	AZT 60 mg / 3TC 30 mg / NVP 50 mg, dispersible tab.	AZT 60 mg / 3TC 30 mg / NVP 50 mg, comp. dispersible	720
KMEDMTHIS22 STD	(kit TB & HIV start) TB MEDICINES 2021	(kit démarrage TB & VIH) MEDICAMENTS TB, 2021	1
• DORAEHZR2T1 STD	E 275 mg / H 75 mg / Z 400 mg / R 150 mg, tab., blister	E 275 mg / H 75 mg / Z 400 mg / R 150 mg, comp., blister	10080
• DORAETHA1T1 STD	ETHAMBUTOL hydrochloride (E), eq. 100 mg base, tab. blister	ETHAMBUTOL chlorhydrate (E), éq. 100 mg base, comp. blister	2400
• DORAHRIF5TD1 STD	H 50 mg / R 75 mg, disp. tab., blister	H 50 mg / R 75 mg, comp. disp., blister	4872
• DORAHRIF7T1 STD	H 75 mg / R 150 mg, tab., blister	H 75 mg / R 150 mg, comp., blister	19488
• DORAHZRI5TD1 STD	H 50 mg / Z 150 mg / R 75 mg, disp. tab., blister	H 50 mg / Z 150 mg / R 75 mg, comp. disp., blister	2436
• DORAISON1TB1 STD	ISONIAZID (H), 100 mg, breakable tab., blister	ISONIAZIDE (H), 100 mg, comp. sécable, blister	1800
• DORAPYRI1T- STD	PYRIDOXINE hydrochloride (vitamin B6), 10 mg, tab.	PYRIDOXINE chlorhydrate (vitamine B6), 10 mg, comp.	11100
• DORAPYRI5T- STD	PYRIDOXINE hydrochloride (vitamin B6), 50 mg, tab.	PYRIDOXINE chlorhydrate (vitamine B6), 50 mg, comp.	1000

MSF Code	Detailed list of articles KMEDKTHI2S-	Liste détaillée des articles KMEDKTHI2S-	Qty
• ELINMAFT1-- STD	FIT TEST KIT, qualitative testing of FFP2/N95 respirators	KIT ESSAI D'AJUSTEMENT, qualité appareils prot.resp.FFP2/N95	1
• ELINMASP04M STD	RESPIRATOR FFP2/N95 + IIR, unvalved, vert.fold, M	APPAREIL PROTECTION RESP, FFP2/N95+IIR,ss valve, pli vert. M	400
• ELINMASS3-- STD	MASK, SURGICAL, IIR type, s.u.	MASQUE CHIRURGICAL, type IIR, u.u.	400
KMEDMTHIS23 STD	(kit TB & HIV start) MEDICINES for opport. infect. 2021	(kit démarrage TB & VIH) MEDICAMENTS pr infect. opport. 2021	1
• DORACOTR1TD STD	COTRIMOXAZOLE, 100 mg / 20 mg, disp. tab.	COTRIMOXAZOLE, 100 mg / 20 mg, comp. disp.	1890
• DORACOTR8T- STD	COTRIMOXAZOLE, 800 mg / 160 mg, tab.	COTRIMOXAZOLE, 800 mg / 160 mg, comp.	2000
• DORAFLUC2C- STD	FLUCONAZOLE, 200 mg, caps.	FLUCONAZOLE, 200 mg, gél.	1000
• DORAHPST32T STD	INH 300mg/ PYRIDOXINE 25mg/ SMX 800mg / TMP 160mg, tab.	INH 300mg/ PYRIDOXINE 25mg/ SMX 800mg / TMP 160mg, comp.	10800
• SMSUCOND1-- STD	CONDOM, lubricated + RESERVOIR, s.u.	PRESERVATIF MASCULIN, lubrifié + RESERVOIR, u.u.	2000
KMEDMTHIS24 STD	(kit TB & HIV start) TB SPUTUM COLLECTION 2021	(kit démarrage TB & VIH) COLLECTE CRACHAT TB 2021	1
• ELINMASP04M STD	RESPIRATOR FFP2/N95 + IIR, unvalved, vert.fold, M	APPAREIL PROTECTION RESP, FFP2/N95+IIR,ss valve, pli vert. M	200
• SDISNADC1T- STD	CHLORINE, 1 g (NaDCC / dichloroisocyan. sodium 1.67 g), tab.	CHLORE, 1 g (NaDCC / dichloroisocyan. sodium 1,67 g), comp.	200
• STSSCONT1S- STD	CONTAINER, SAMPLE, sputum, plastic, non-sterile	POT A PRELEVEMENT, crachoir, plastique, non stérile	1200
KMEDMTHIS25 STD	(kit TB & HIV start) HIV tests 2021	(kit démarrage TB & VIH) TESTS VIH 2021	1
• DEXTIODP1S2 STD	POLYVIDONE IODINE, 10%, solution, 200 ml, dropper bot.	POLYVIDONE IODEE, 10%, solution, 200 ml, fl. verseur	1
• ELABTIME1E- STD	TIMER, electronic	MINUTEUR électronique	2
• SDRECOTW5R- STD	COTTON WOOL, hydrophilic, roll, 500 g	COTON hydrophile, rouleau, 500 g	1
• SSDTDETC101 STD	(Determine rapid test) BUFFER CHASE, 2.5 ml, 7D2243	(test rapide Determine) TAMPON, 2,5 ml, 7D2243	10
• SSDTHIVD10T STD	HIV 1 + 2 TEST (Determine), ser/pl/wb, 1 test 7D2343	TEST VIH 1 + 2 (Determine), sér/pl/st, 1 test 7D2343	300
• SSDTHIVS20T STD	HIV 1 + 2 TEST (STAT-PAK), ser/pl/wb, 1 test, 60-9500-0	TEST VIH 1 + 2 (STAT-PAK), sér/pl/st, 1 test, 60-9500-0	140
• SSDTHIVU20T STD	HIV 1 + 2 TEST (Uni-Gold), ser/pl/wb, 1 test 1206502	TEST VIH 1 + 2 (Uni-Gold), sér/pl/st, 1 test 1206502	140
• STSSBSVT5E- STD	(blds.syst.) TUBE, VACUUM, plastic, K2EDTA, 4ml, purple	(s.prél.sang.) TUBE SOUS VIDE, plastique, K2EDTA, 4ml, mauve	300
• STSSLANCSAM2 STD	SAFETY LANCET, medium flow, needle 21G x 1.8mm, green, s.u.	LANCETTE DE SECURITE débit moyen, aig.21Gx1,8mm, vert, u.u.	580

End of list

KIT TB & HIV CARE CONTINUATION in emergencies 2021

KIT POURSUITE TRAITEMENT TB & VIH en urgence 2021

KMEDKTHIE2- STD KIT HIV & TB CARE CONTINUATION in emergencies 2021
KIT POURSUITE TRAITEMENT VIH & TB en situat. d'urgence 2021

Kit updated in 2021. If you need more information, please contact your HIV-AIDS advisor.

INDICATIONS

Kit containing TB and HIV medicines that is intended for use in emergency situations.

This kit enables to avoid treatment interruption for patients who were under TB and/or HIV treatment before the emergency.

SPECIFICATIONS

This small kit contains:

- ARV medicines:
  - treatment for 10 adults, 5 pregnant women and 3 children / month.
  - to cover 90 adults and pregnant women and 18 children over a 6 months period plus ART prophylaxis for 5 infants.
- TB medicines:
  - 15 TB treatments for adults during intensive phase
  - 15 TB treatments for adults during continuation phase
  - 3 TB treatments for children in intensive phase
  - 3 TB treatments for children in continuation phase

It can be consumed early, if many more patients need continuation at the start of the emergency.

Kit mis à jour en 2021. Pour de plus amples informations, n'hésitez pas à contacter votre référent VIH-SIDA.

INDICATIONS

Kit contenant des médicaments TB et VIH, destiné à être utilisé dans les situations d'urgence.

Ce kit permet d'éviter l'interruption du traitement pour les patients qui étaient sous traitement TB et/ou VIH avant l'urgence.

SPÉCIFICATIONS

Ce petit kit contient:

- Médicaments ARV:
  - traitement pour 10 adultes, 5 femmes enceintes et 3 enfants / mois
  - pour couvrir 90 adultes et femmes enceintes et 18 enfants sur une période de 6 mois, plus prophylaxie ART pour 5 nourrissons
- Médicaments TB:
  - 15 traitements TB adultes en phase intensive
  - 15 traitements TB adultes en phase de continuation
  - 3 traitements TB enfants en phase intensive
  - 3 traitements TB enfants en phase de continuation

Il peut être consommé rapidement, si beaucoup plus de patients doivent poursuivre leur traitement au début de l'urgence.

MSF Code		Composed of	Composé de	Tot Qty
DORAABLA3TD	STD	ABC 120 mg / 3TC 60 mg, disp. breakable tab.	ABC 120 mg / 3TC 60 mg, comp. disp. sécable	3780
DORADOLU1TD	STD	DOLUTEGRAVIR sodium (DTG), eq. 10 mg base, disp. tab.	DOLUTEGRAVIR sodium (DTG), éq. 10 mg base, comp. disp.	1890
DORADOLU5T-	STD	DOLUTEGRAVIR sodium (DTG), eq. 50 mg base, tab.	DOLUTEGRAVIR sodium (DTG), éq. 50 mg base, comp.	1890
DORALPVR1P-	STD	LPV 40 mg / r 10 mg, pellets-in-a-capsule	LPV 40 mg / r 10 mg, granules dans gélule	7560

MSF Code		Composed of	Composé de	Tot Qty
DORANEVI1S1	STD	NEVIRAPINE (NVP), 50mg/5ml, oral susp., 100 ml, bot.	NEVIRAPINE (NVP), 50mg/5ml, susp. orale, 100 ml, fl.	30
DORATELD1T-	STD	TDF 300mg / 3TC 300mg / DTG 50mg, tab.	TDF 300mg / 3TC 300mg / DTG 50mg, comp.	9450
DORAYILN1TD	NST	AZT 60 mg / 3TC 30 mg / NVP 50 mg, dispersible tab.	AZT 60 mg / 3TC 30 mg / NVP 50 mg, comp. dispersible	720
DORAEHZR2T1	STD	E 275 mg / H 75 mg / Z 400 mg / R 150 mg, tab., blister	E 275 mg / H 75 mg / Z 400 mg / R 150 mg, comp., blister	10080
DORAETHA1T1	STD	ETHAMBUTOL hydrochloride (E), eq. 100 mg base, tab. blister	ETHAMBUTOL chlorhydrate (E), éq. 100 mg base, comp. blister	2400
DORAHRIF5TD1	STD	H 50 mg / R 75 mg, disp. tab., blister	H 50 mg / R 75 mg, comp. disp., blister	4872
DORAHRIF7T1	STD	H 75 mg / R 150 mg, tab., blister	H 75 mg / R 150 mg, comp., blister	19488
DORAHZRI5TD1	STD	H 50 mg / Z 150 mg / R 75 mg, disp. tab., blister	H 50 mg / Z 150 mg / R 75 mg, comp. disp., blister	2436
DORAISON1TB1	STD	ISONIAZID (H), 100 mg, breakable tab., blister	ISONIAZIDE (H), 100 mg, comp. sécable, blister	1800
DORAPYRI1T-	STD	PYRIDOXINE hydrochloride (vitamin B6), 10 mg, tab.	PYRIDOXINE chlorhydrate (vitamine B6), 10 mg, comp.	11100
DORAPYRI5T-	STD	PYRIDOXINE hydrochloride (vitamin B6), 50 mg, tab.	PYRIDOXINE chlorhydrate (vitamine B6), 50 mg, comp.	1000
L007TUBM08E-P	STD	HIV/TB Integration. Interim guidance document.	HIV/TB Integration. Interim guidance document.	1

End of list

MSF Code		Related Articles	Articles apparentés	Type Relation
KMEDKTHI2S-	STD	KIT STARTING TUBERCULOSIS and HIV CARE, 6 months 2021	KIT DEMARRAGE PRISE EN CHARGE TUBERCULOSE et VIH 6 mois 2021	is Related to
KMEDKTHIE1-	STD	KIT HIV & TB CARE CONTINUATION in emergencies, 50 tt	KIT POURSUITE TRAITEMENT VIH & TB en situat. d'urgence, 50tt	is Replaced by

End of list

MSF Code		Detailed list of articles KMEDKTHIE2-	Liste détaillée des articles KMEDKTHIE2-	Qty
DORAABLA3TD	STD	ABC 120 mg / 3TC 60 mg, disp. breakable tab.	ABC 120 mg / 3TC 60 mg, comp. disp. sécable	3780
DORADOLU1TD	STD	DOLUTEGRAVIR sodium (DTG), eq. 10 mg base, disp. tab.	DOLUTEGRAVIR sodium (DTG), éq. 10 mg base, comp. disp.	1890
DORADOLU5T-	STD	DOLUTEGRAVIR sodium (DTG), eq. 50 mg base, tab.	DOLUTEGRAVIR sodium (DTG), éq. 50 mg base, comp.	1890
DORALPVR1P-	STD	LPV 40 mg / r 10 mg, pellets-in-a-capsule	LPV 40 mg / r 10 mg, granules dans gélule	7560
DORANEVI1S1	STD	NEVIRAPINE (NVP), 50mg/5ml, oral susp., 100 ml, bot.	NEVIRAPINE (NVP), 50mg/5ml, susp. orale, 100 ml, fl.	30
DORATELD1T-	STD	TDF 300mg / 3TC 300mg / DTG 50mg, tab.	TDF 300mg / 3TC 300mg / DTG 50mg, comp.	9450
DORAYILN1TD	NST	AZT 60 mg / 3TC 30 mg / NVP 50 mg, dispersible tab.	AZT 60 mg / 3TC 30 mg / NVP 50 mg, comp. dispersible	720
DORAEHZR2T1	STD	E 275 mg / H 75 mg / Z 400 mg / R 150 mg, tab., blister	E 275 mg / H 75 mg / Z 400 mg / R 150 mg, comp., blister	10080
DORAETHA1T1	STD	ETHAMBUTOL hydrochloride (E), eq. 100 mg base, tab. blister	ETHAMBUTOL chlorhydrate (E), éq. 100 mg base, comp. blister	2400

MSF Code		Detailed list of articles KMEDKTHIE2-	Liste détaillée des articles KMEDKTHIE2-	Qty
DORAHRIF5TD1	STD	H 50 mg / R 75 mg, disp. tab., blister	H 50 mg / R 75 mg, comp. disp., blister	4872
DORAHRIF7T1	STD	H 75 mg / R 150 mg, tab., blister	H 75 mg / R 150 mg, comp., blister	19488
DORAHZRI5TD1	STD	H 50 mg / Z 150 mg / R 75 mg, disp. tab., blister	H 50 mg / Z 150 mg / R 75 mg, comp. disp., blister	2436
DORAISON1TB1	STD	ISONIAZID (H), 100 mg, breakable tab., blister	ISONIAZIDE (H), 100 mg, comp. sécable, blister	1800
DORAPYRI1T-	STD	PYRIDOXINE hydrochloride (vitamin B6), 10 mg, tab.	PYRIDOXINE chlorhydrate (vitamine B6), 10 mg, comp.	11100
DORAPYRI5T-	STD	PYRIDOXINE hydrochloride (vitamin B6), 50 mg, tab.	PYRIDOXINE chlorhydrate (vitamine B6), 50 mg, comp.	1000
L007TUBM08E-P	STD	HIV/TB Integration. Interim guidance document.	HIV/TB Integration. Interim guidance document.	1

End of list

ANNEX 4: Examples of lay outs / organization of HIV/TB services at the level of hospital and primary health care clinic

Figure 1. example of HIV and TB activities at Hospital level

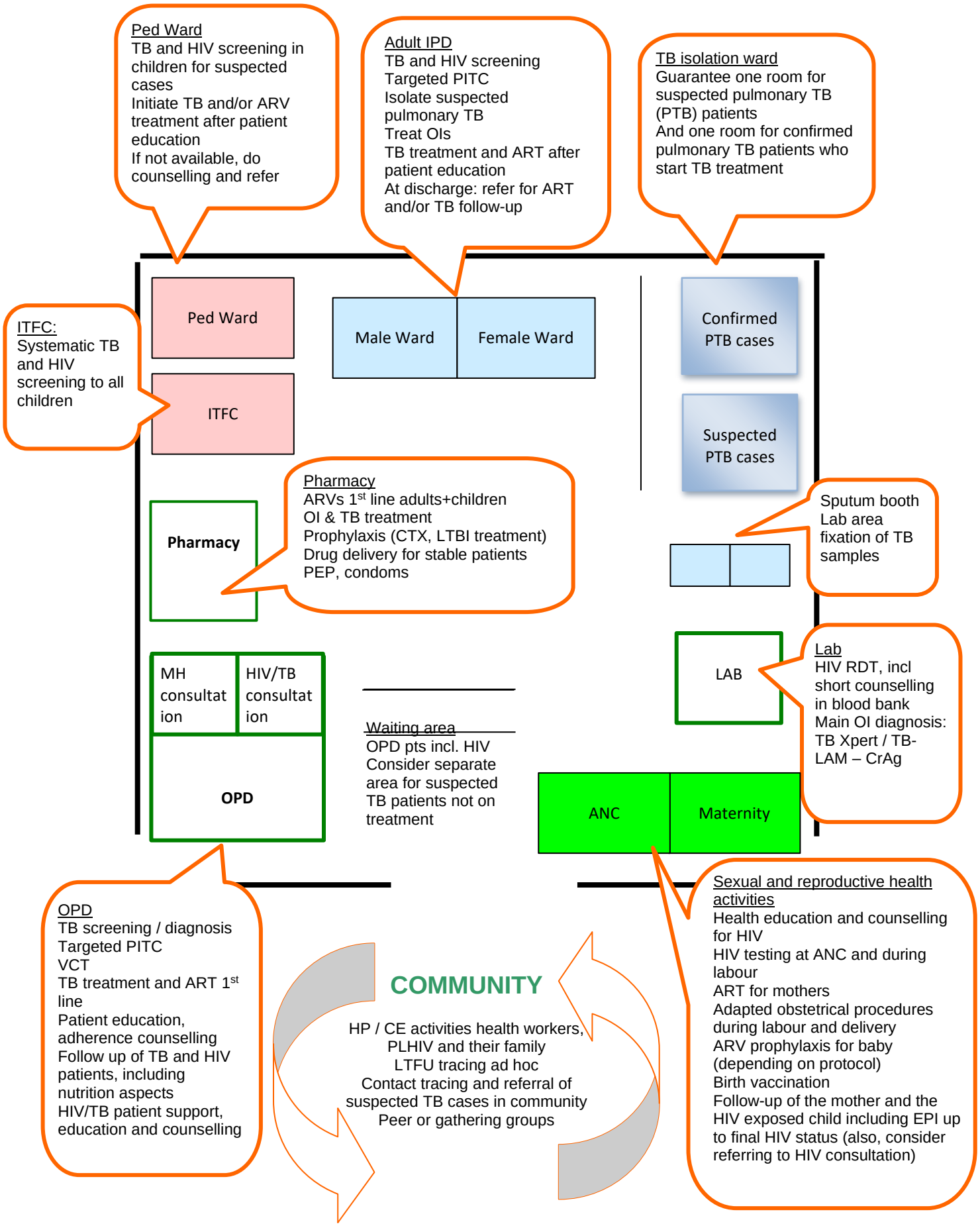
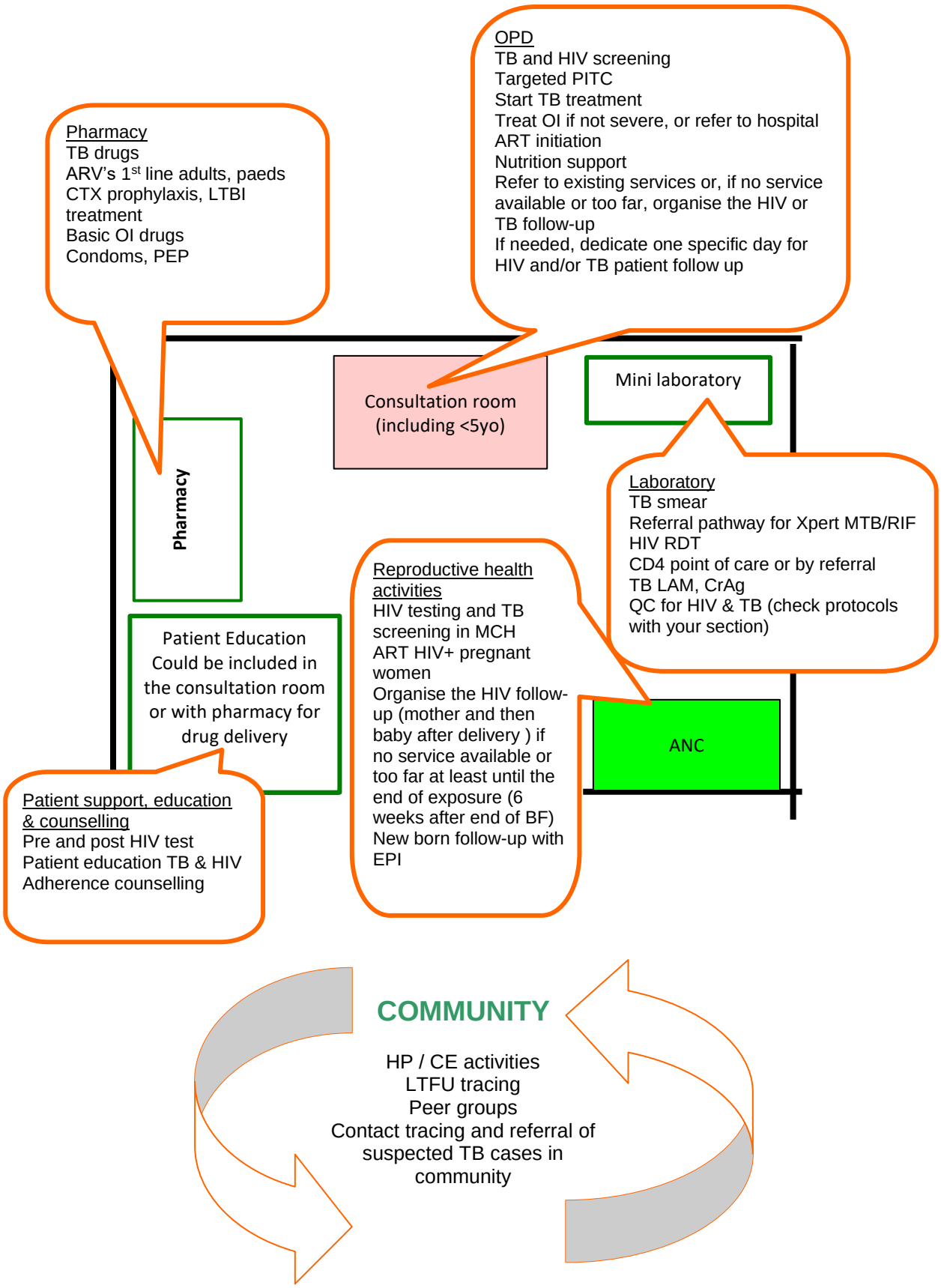


Figure 2: HIV and TB services in a primary health care clinic



ANNEX 5: List of available resources/guidelines

HIV Prevention, testing and Diagnosis

- Consolidated guidelines on HIV testing services for a changing epidemic https://www.who.int/publications/i/item/consolidated-guidelines-on-hiv-testing-services-for-a-changing-epidemic
- Guidelines on HIV self-testing and partner notification: Supplement to consolidated guidelines on HIV testing services; WHO 2016 E: https://www.who.int/hiv/pub/vct/hiv-self-testing-guidelines/en/
- Guidance on Provider Initiated Counselling and Testing in health structures, WHO 2007 E/F: https://www.who.int/hiv/pub/vct/pitc/en/
- Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV https://www.who.int/hiv/pub/guidelines/earlyrelease-arv/en/

TB Prevention, Screening, Diagnosis & Infection control

- MSF PIH 2014 TB guideline (being updated)
- MSF, Tuberculosis Health Facilities Design Handbook, Médecins Sans Frontières, 2017
- A guide to monitoring and evaluation of collaborative TB/HIV activities, 2015 revision: https://www.who.int/tb/publications/monitoring-evaluation-collaborative-tb-hiv/en/
- WHO consolidated guidelines on tuberculosis: module 1: prevention: tuberculosis preventive treatment, WHO 2020 update: https://www.who.int/publications/i/item/who-consolidated-guidelines-on-tuberculosis-module-1-prevention-tuberculosis-preventive-treatment
- WHO guidelines on TB infection prevention and control, 2019 update: https://www.who.int/tb/publications/2019/guidelines-tuberculosis-infection-prevention-2019/en/
- Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level: https://www.who.int/gpsc/ipc-components-guidelines/en/
- TB & Chest X-rays: https://www.who.int/tb/publications/Radiography_TB_factsheet.pdf?ua=1 , https://www.who.int/tb/publications/chest-radiography/en/ (Chapter 1.4 gives a good overview of the use of chest X-rays)
- Point of Care Ultrasound (POCUS): A link to chapter 18 of the MSF ultrasound manual for trained practitioners- which discusses the FASH (HIV-TB) exam: https://msfintl.sharepoint.com/:b:/s/msfintlcommunities/DIWG/ESYiQgPbYnZNtzVi_T4xVA4BDYMGryc4304a0l0m6_zCqg?e=eHcSHL
- Heller T, wallrauch C, Goblirsch S, Brunetti E. Focused assessment with sonography for HIV-associated tuberculosis (FASH): a short protocol and pictorial review: Crit Ultrasound J. 2012 Nov 21;4(1):21. Doi 10.1186/2036-7902-4-21.
- Heller T. FASH: Focused Assessment with Sonography for HIV/TB. A Practical Manual. Munich, Germany. TALC- Teaching Aids at Low Cost. 2013. ISBN:978-0-9558811-8-3.

Patient education, HIV and TB Counselling and adherence

- Patient Support, Education and Counselling Guideline: For adults living with HIV and/or TB, 2018 update: https://samumsf.org/sites/default/files/2018-09/PSEC_Adults%20MSF%20Guideline.pdf
- Patient Support, Education and Counselling Guideline: For children and adolescents living with HIV, 2018 update: https://samumsf.org/sites/default/files/2018-06/PSEC_Children%20and%20adolescents_0.pdf

HIV/TB and PMTCT consultation and Treatment Guidance

- National program protocols

- MSF HIV/TB Guide for Primary Care (2018): https://samumsf.org/en/resources/msf-hivtb-clinical-guide-2018#
- Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection, Recommendations for a public health approach - Second edition WHO 2016. https://www.who.int/hiv/pub/arv/arv-2016/en/
- Update of recommendations on first- and second-line antiretroviral regimens: WHO JULY 2019 https://apps.who.int/iris/bitstream/handle/10665/325892/WHO-CDS-HIV-19.15-eng.pdf?ua=1
- Updated recommendations on first-line and second-line antiretroviral regimens and post-exposure prophylaxis and recommendations on early infant diagnosis of HIV: Interim guidance WHO 2018: https://www.who.int/hiv/pub/guidelines/ARV2018update/en/
- ANNEX 3. DOSAGES FOR ARV DRUGS https://www.who.int/hiv/pub/guidelines/ARV_Guidelines-2018-Annex3a.pdf?ua=1
- Guidelines for treatment of drug-susceptible tuberculosis and patient care - 2017 update ; https://www.who.int/tb/publications/2017/dstb_guidance_2017/en/
- WHO treatment guidelines for multidrug- and Rifampicin-resistant TB 2018 update; https://www.who.int/tb/publications/2019/consolidated-guidelines-drug-resistant-TB-treatment/en/ also available via https://samumsf.org/en/resources/tb/dr-tb/who-consolidated-guidelines-on-dr-tb-treatment-2019
- MSF PIH 2014 TB guideline (being updated)
- SAMU Website: https://samumsf.org/en
- A guide to monitoring and evaluation for collaborative TB/HIV activities, 2015 revision: https://www.who.int/tb/publications/monitoring-evaluation-collaborative-tb-hiv/en/
- Patient education and counselling guide for PMTCT B+, OCB April 2013 https://samumsf.org/sites/default/files/2018-06/4_english_Patient_education_and_counselling_guide_for_PMTCT.pdf
- Prevention of mother-to-child transmission (PMTCT) of HIV Protocol: MSF International AIDS Working Group, Revised August 2017 https://samumsf.org/sites/default/files/2019-02/PMTCT%20Guidelines_2017.pdf

HIV Data management: Monitoring and Evaluation

- MSF DHIS1 and DHIS 2 (in development process)
- Three interlinked patient monitoring system for HIV care/ART, MCH/PMTCT and HIV/TB: standardized minimum data set and illustrative tools (WHO 2013 revision): https://apps.who.int/iris/bitstream/handle/10665/77753/9789241598156_eng.pdf?sequence=1
- Definitions and reporting framework for tuberculosis (WHO Update December 2014): https://apps.who.int/iris/bitstream/handle/10665/79199/9789241505345_eng.pdf?sequence=1
- TB guideline appendix 32, 33, 34, 35 (MSF, PIH 2014)

Integration and adaptation of COVID 19 in HIV/TB activities

- **Integration and adaptation of HIV/TB activities due to COVID 19.**

https://msfintl.sharepoint.com/sites/msfintlcommunities/AWG/Resources/Forms/AllItems.aspx?viewid=145cd5f1%2D898d%2D419c%2Dbd1f%2D8c33c1cb4389&id=%2Fsites%2Fmsfintlcommunities%2FAWG%2FResources%2FCOVID%2D19%2F01%2D%20MSF%20guidance%20and%20tools

ANNEX 6: Finance example

Please, find below the estimated budget per patient for the Yambio Test & treat project[27], which was a community-based HIV test and start program. These costs need to be adjusted to availability of resources: ART are generally covered by Global Fund and MSF only orders 2 to 3 months supply; viral load is covered in some countries as well by MoH or GF; in integrated components, you might not need to hire any specific resource and the cost per patient will depend on the salary grade. Training costs are not included in the calculation:

Cost per patient

What	Cost	Comments
Personnel	$67	Will depend on salary grade and number of necessary staff The personnel includes the Mobile Clinic team composed of; one Clinical Officer, one Nurse Counsellor, one Laboratory technician, two community health workers and one driver
Drugs	$84	This is full first line mission; if only 3 months ordered per patient, the cost will go down to $21
Laboratory	$35	It will depend if some of the tests (such as viral load) is covered by external actor (Where a point of care test is used Xpert is approx: 15,000 euros and catridges are $8 @)
Transport	$6	If facility based, this cost can be excluded. It has been included the amortization of a car with a life expectancy of ten year and with the related costs of mantainance
Others	$7	
Total	$199	

[27] https://www.msf.org/yambio-test-and-treat

ANNEX 7: Case Studies

Case study 1: Malakal: HIV/TB care integration

(an example of HIV/TB integration on hospital level in an area with a treatment gap of > 90%)

Short Description: Malakal project is in the Upper Nile region in South Sudan. Currently, it runs 2 hospitals (at Malakal town and POC) and covers a population of 50.000 people. In 2017, the project decided to integrate HIV/TB activities to other medical competing priorities, as the treatment gap was > 90%, the HIV/TB burden was high and MoH and other actors were not providing HIV/TB care.
Epidemiology: in South Sudan, the HIV prevalence is 2.7% and TB incidence 150/100.000 population. Incidence in displaced population is thought to be 3 times higher.
Context: protracted conflict and very mobile populations, several villages but most part of population lives either in town or in the area of protection of civilians. MoH broke down after ethnic conflict in 2013. Humanitarian actors are providing health care; only IMC provides PMTCT.
Clinic: the project runs 2 hospitals facilities, including IPD (adults, children, neonatology, and maternity), OPD, vaccinations, outreach and watsan activities.
HIV/TB integration project: After 2 years of HIV/TB program, the project is well stablished. They do VCT on top of PICT, PMTCT and HIV & TB-DRTB care; the lab is quite complete, with a PIMA (CD4 testing) machine, Xpert MTB/RIF with plans to scale up to HIV VL and EID, which are currently performed by a referral Lab. The project has a community strategy with HPCE activities and a specific HIV/TB counsellor.

Case study 2: CAR: integrating Differentiated Service Delivery (DSD) of ART services

(an example of integrating DSD services)

Description: MSF runs a basic health care clinic at Boguila since 2007 with HIV/TB activities in the remote northern part of the country. The Boguila outreach site has one BHC facility and a health post. Activities include OPD, malaria, vaccinations, ANC/PMTCT, outreach and Watsan activities.
In the last 6 years the teams have been very busy responding to emergencies. As a result HIV testing was suspended and HIV/TB activities limited to continuation of ART, lifesaving TB treatment, PMTCT and lost-to-follow-up tracing. Now the situation has calmed down and both MoH and MSF are eager to expand HIV/TB activities and improve access by implementing the differentiated service delivery (DSD) of ART services.
Epidemiology: the prevalence of HIV is about 4%, TB incidence is not very high, (TB testing continued through referrals to either Paoua or Bossangoa). There are presumed cases of HIV in the OPD, ANC and the nutrition program.
Context: Rural. There are no HIV/TB providers nearby. MSF is referring all its patients to Bossangoa hospital via motorcycle arrangement or by plane. MSF is supporting HIV/TB activities in the IPD in Bossangoa hospital. MSF also supports the lab with a GeneXpert where TB and Viral load testing is done.
HIV/TB integration project: The project decided to implement DSDs including community ART groups, appointment spacing, fast track and resume HIV and TB testing (PICT) in addition to the existing PMTCT and ART/TB refills.
They made an agreement to refer sick patients, TB samples, viral load samples and samples for diagnosis HIV in infants to Bossangoa hospital. Together with MoH they work on implementing the DSDs for stable PLWHIV and PWTB on the health center and community levels. For HIV testing they use the rapid tests and refer to Bossangoa hospital for confirmation with Xpert. They use the paper based MoH Counselling/ART/PMTC registers, ART and TB ID cards, sending minimum indicators/numbers to the MoH and MSF for monitoring and evaluation. Contingency plan is part of the DSD package and scale up has started with linkage of new patients to the DSDs.

Case study 3: CAR: integrating PMTCT in the maternity in Castor (Bangui)

Description: In Bangui, MSF is supporting a vertical project focused on maternity and SRH. Activities include maternity, SGBV and family planning. HIV testing is integrated in all services, but no further provision of care. Women were provided with one-month supply ARV and HIV exposed babies with one-month supply ARV prophylaxis and referred to health centers without further follow up.
The teams were concerned on the lack of follow up of HIV-exposed babies and the lack of follow-up of HIV+ pregnant women identified and therefore, the preventable HIV vertical transmissions.
Epidemiology: the prevalence of HIV is 7% in Bangui, however access to ART is very poor and many pregnant women have never received HIV testing or access to PMTCT services. The prevalence of HIV infection amongst pregnant women who come to deliver at the maternity is 6%.
Context: Urban. Some Health centers are supported by partners implementing PMTCT. The national program aims to integrate PMTCT in all ANCs.
HIV/TB integration project: the project decided to improve its HIV integration in a stepwise approach. As there was no capacity nor ambition to be involved in ANC, the team agreed to start improving the follow-up of HIV exposed babies born in Castor. A dedicated implementer supported the implementation of the following components:

- Integration of Early infant diagnosis (EID) with implementation of GeneXpert in a lab that was (anyway) being upgraded.
- Dedicated consultation in Castor to follow up HIV exposed babies after delivery for 6 weeks where EID test is done.
- Referral system to pediatric hospital for early ART initiation of babies identified as EID+.
- Better screening of sick women with HIV with provision of CD4 and an algorithm of screening of advance diseases.
- Referral system of sick women to hospital and implementation of contra-referral system with health centres with PMTCT where women can be further followed-up and strengthening communication so a capacity building system/mentoring approach with other health centres can be further designed.

Case study 4: Guinea Conakry: integrating HIV care in primary health centres as decentralization strategy in a low prevalence context

Short Description: In Conakry, Guinea, MSF supports a big comprehensive vertical HIV project in a health centre that was getting congested with big cohort of HIV+ patients (>10,000). Decentralization to other health centres in the city was the following next step but the team and the MoH agreed that the model of decentralizing would be based in integrating HIV care within the rest of the activities in 6 health centres as there was no capacity to implement vertical programs in each.
Epidemiology: in Conakry, the HIV prevalence is 2.3% in a generalized epidemic.
Context: urban setting, where HIV is not the main problem, while it is a generalized epidemic, the prevalence in specific groups like KP can be ten times higher. Provision of care was very limited to only few health centers that had growing cohorts difficult to maintain.
HIV/TB integration project: As such a team of MSF was composed of clinician, counselling and M&E support that would rotate through the clinics to decentralize to train and capacitate with a mentorship approach the teams of the MoH in the clinics. In a progressive manner the clinicians integrated in their consultations the follow up consultations of patients referred from Matam and implemented the systems to absorb and monitor their own cohort of HIV patients. MSF designed a mentoring plan to support all components of the program in each health care facility. The mentoring plan covers general consultations, laboratory support, pharmacy support and PMTCT. Topics are covered progressively and MSF support as well with monitoring, referral of samples, technical support and discussion of difficult cases and evaluations of performance progress, building independent teams in each of the health facilities handling cohorts of between 1,500 and 2,500 patients each.

Case study 5: Madaoua (Niger): HIV/TB care integration in pediatric/nutrition program

Short Description: Madaoua is a city in Tahoua region (in Niger) prone to conflict, with a population of 450.000 habitants. Main killers are malaria and malnutrition, which are seasonal. In 2010, MSF opened an ITFC, ATFC and IPD for under 5 years old. The average of SAM children is 2200 per year and mortality around 4%, while around 1500 patients are hospitalized with a mortality rate of 5.4%.
Epidemiology: In 2016, National HIV prevalence is <1% but HIV positivity at blood bank was 8%.
Assessment: HIV care under MoH but no PMTCT services, no access to PCR DNA, no pediatric formulations available and no inhibitors of protease in all country; staff was not trained, and stigma was very high.

HIV/TB integration project: systematic HIV testing in ITFC; pediatric HIV

Objectives	**Systematic HIV testing in ITFC**	**HIV treatment**
What	HIV testing Counselling pre-test in group Counselling post-test Test to children if mother HIV positive	ART treatment and CTX Clinical monitoring Laboratory: CD4 & VL in Xpert machine Adherence counselling
Where	ITFC	HIV clinic, Lab (CD4 / VL)
For Whom	SAM with medical complications	Children infected with HIV
Who	Nurse	Nurse