EPTS OpenMRS

Reports Requirements

Indicator Specification Document

TX_TB

Version 1.6

Version

Date	Version	Description	Author
January 9, 2019	1.0	Initial creation of document	Lalitha Moodley
February 15, 2019	1.1	Update of content based on requirements gathering meeting on 14th February, 2019	Lalitha Moodley
February 15, 2019	1.2	Overall review	Pinki Meggi Zainabe Dadá
February 28, 2019	1.3	Update of content based on requirements gathering meeting on 22nd February, 2019. Revised the structure and summarized the content.	Pinki Meggi
March 5, 2019	1.4	PEPFAR Review highlighted in green	Maria Rein
March 6, 2019	1.5	FGH Comments and Review Incorporated (v1.3_FGH_5_2_19) highlighted in green	Pinki Meggi
March 14, 2019	1.6	Minor changes based on Partners feedback and FGH development team discussion (highlighted in yellow)	Pinki Meggi

Approvals and Sign-off

Approvals Panel

Version	Approver	Approved by	Date
1.6	CDC		

Approvals Panel

The Approver signatures signify that this document has been reviewed and satisfies the project governance, business and system needs.

Document Title: EPTS OpenMRS Indicator Specification and Requirements – TX_TB

Year: 2019

Authors Signature

Version	Authors	Approved by	Date
1.6	Jembi Health Systems		
	FGH		

Authors

The Authors signatures represent the EPTS Requirements Gathering Group composed by two CDC Partners, Jembi Health Systems (HIS Partner) and FGH (Clinical Partner) and signify that this document is complete and that, to the best of their knowledge, it adequately addresses the document's intended purpose and scope and it is accurate.

Contents

1 Introduction

1.1 Purpose

The purpose of this document is to capture the requirements and specifications for the PEPFAR MER **TX_TB** Indicator. This indicator is reported from the EPTS OpenMRS system in use by PEPFAR Clinical partners to capture patient level data in retrospective mode at the Health Facilities.

1.2 Scope

This document explains the indicator definition and defines the functional and technical requirements for generating the indicator in an OpenMRS Report. The link to test scenario documents is also included.

The indicator definition is based on the PEPFAR MER (Monitoring, Evaluation and Reporting) Indicator Reference Guide specified below in 1.3 References.

1.3 References

MER 2.3 Indicator Reference Guide
Ficha de Seguimento Adult (Adult Clinical Record)
Ficha de Seguimento Pediatric (Pediatric Clinical Record)

2 Indicator Report Definition

2.1 Description (from MER 2.3)

The TX_TB indicator reports the proportion of ART patients screened for TB in the semiannual reporting period who start TB treatment.

This indicator documents TB screening of ART patients, as well as the proportion who were diagnosed and initiating TB treatment. The disaggregates show the cascade from screening to testing and can be used to identify gaps and challenges in TB diagnostic activities among ART patients.

2.2 Denominator (from MER 2.3)

The TX_TB denominator indicates the number of ART patients who were screened for TB at least once during the semiannual reporting period. The denominator can be generated by counting the number of patients on ART who were screened for TB symptoms at least once during the reporting period. This includes newly enrolling ART patients as well as those previously started on ART.

2.3 Numerator (from MER 2.3)

The TX_TB numerator indicates the number of ART patients who were started on TB treatment during the semiannual reporting period. The numerator can be generated by counting the number of screened ART patients who were diagnosed with TB and started on anti-TB therapy during the reporting period.

2.4 Indicator Report Level and Frequency

TX_TB is an indicator collected and reported at the level of the Health Facility
TX_TB is reported at each semiannual (every 6 months) reporting cycle (H1, H2, which are also considered as S1 and S2).
PEPFAR partners are required to report every six months, in the following periods:

- S1 September 21st - March 20th
- S2 March 21st - September 20th

2.5 Indicator Report Primary Sources (from MER 2.3)

TX_TB indicator should be collected from:

- ART Registers and/or
- Additional Data Collection Sources that may contain relevant information:
  - Facility-based TB screening registers or forms
  - TB specimen registers
  - TB microscopy Result Registers
  - GeneXpert data collection systems

Documentation of symptom screening is generally collected in patient charts but may also be collected in another aggregated partner-generated and verifiable data source.

Screening for TB and/or initiation of anti-TB therapy might not happen at the same time that ART is started. For PLHIV new to HIV care, those who are diagnosed with TB are usually started on anti-TB therapy before they initiate ART (e.g., 2-8 weeks as per current recommendations). Regardless of when they occur relative to ART initiation, TB screening and initiation of TB therapy should be included for all patients who were currently on ART or who started ART at any time during the reporting period.

2.6 Disaggregation

The TX_TB **numerator** should be reported disaggregated in following groups:

- **ART Status: CURRENT / NEW on ART by Age /Sex (Required)**
  - Number of patients starting TB treatment who are newly started ART during the reporting period: <15 M / F, 15+ M / F, unknown age M/ F.
  - Number of patients starting TB treatment who were already on ART prior to start of the reporting period: <15 M / F, 15+ M / F, Unknown age M/F.

The TX_TB **denominator** should be reported disaggregated in following groups

- **Start of ART by Screen Result by Sex /Age (Required)**
  - New on ART / Screen Positive: <15 M / F, 15+ M / F, Unknown Age M / F
  - New on ART/ Screen Negative <15 M / F, 15+ M / F, Unknown Age M / F
  - Previously on ART / Screen Positive: <15 M / F, 15+ M / F, Unknown Age M / F
  - Previously on ART / Screen Negative: <15 M / F, 15+ M / F, Unknown Age M / F

- **Specimen Sent [Required] (*Note:* not possible to disaggregate, this details is not possible to collect currently)**
  - Number of ART patients who had a specimen sent for bacteriologic diagnosis of active TB disease.
  - **Diagnostic Test (Disaggregation of Specimen Sent) [Required]**
    - GeneXpert MTB/RIF assay (with or without other testing)
    - Smear microscopy only
    - Additional test other than GeneXpert
- **Positive Result Returned [Required] (*Note:* not possible to disaggregate, this details is not possible to collect currently)**
  - Number of ART patients who had a positive result returned for bacteriologic diagnosis of active TB disease.

Age represents an individual's age at the **end of the reporting period** or when last seen at the facility. For example, a 14-year-old child will be counted as currently receiving treatment in the <15 age category at the end of reporting period "A". During reporting period "B" the child turns age 15 and so at the end of this reporting period the child will be counted under the 15+ age category.

Disaggregate descriptions & definitions

Age / Sex / Start of ART by Screen Result

- Age / Sex / New on ART / Screen Positive: The number of patients who started ART in the reporting period and who screened with at least one positive symptom during the reporting period.
- Age / Sex / New on ART / Screen Negative: The number of ART patients who started ART within the reporting period and who had all negative symptoms screens during the reporting period.
- Age / Sex / Previously on ART / Screen Positive: The number of patients who were on ART prior to the reporting period and who had at least one positive symptom on screen during the reporting period.
- Age / Sex / Previously on ART/ Screen Negative: The number of ART patients who were on ART prior to the reporting period and who had all negative symptom screen during the reporting period.

Specimen sent / Diagnostic Test / Positive Result Returned (*Fields will be created, but will be blank, until data starts being captured.*)

- Specimen sent: The number of ART patients who had a specimen sent for bacteriologic diagnosis of active TB disease
- Diagnostic Test: The number of patients who had a specimen sent for bacteriologic diagnosis of active TB disease, disaggregated by performed type of test: GeneXpert MTB/RIF assay (with or without other testing), Smear microscopy only, Additional test other than GeneXpert.
- Positive Result Returned: The number of ART patients who had a positive result returned for bacteriologic diagnosis of active TB disease

2.7 Report Output

The report output for TX_TB indicator can be found as attachment.

3 Requirements Definition

3.1 Key Assumptions

The key assumptions for TX_TB indicator and related to EPTS OpenMRS are the following:

1. All patients captured in the OpenMRS system are HIV positive.
2. All patients captured in the OpenMRS system might be on antiretroviral therapy (ART).
3. All patients on ART program are enrolled in SERVIÇO TARV-TRATAMENTO;
4. All patients must be officially enrolled on ART Service at end of reporting period on specified health facility. Officially enrolment mean
   a) have “Processo Clinico Parte A” registered in health facility or
   b) has been enrolled in “SERVICO TARV – CUIDADO” program in health facility or
   c) has been enrolled in “SERVICO TARV – TRATAMENTO” as “Transferred in” in
   health facility.
5. All patients on ART might or not be screened for TB in some time.
6. Patients are screened, diagnosed and then begin TB treatment.

7. To identify patients who were screened for TB, the following fields needs to be checked:

a) “Restreio de TB” (symptom-based) in any encounter/consultation (“Ficha de Seguimento”) that occurred during the reporting period. Possible Values “S/N” (Yes/No). If there is a tick in either “yes” or “no”, this mean that the TB screening was done and this patient is considered screened for TB.

OR

b) “Resultado da Investigação para TB de BK e/ou RX?” in any encounter /consultation (“Ficha de Seguimento”) that occurred during the reporting period. Possible Values “Pos/Neg”. if there is a tick in either positive or negative box, the patient is considered to be screened for TB.

OR

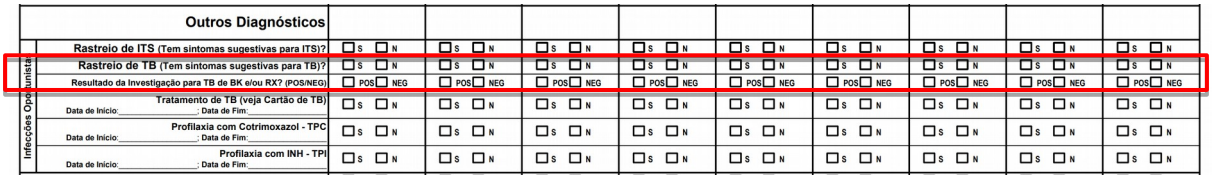
c) “ TB Program Start Date” in any encounter/consultation (“Ficha de Seguimento”) where the Start Date (Data Inicio) is within the reporting period.

OR d) “TB Program Enrollment Date” (Data de Admissão) In OpenMRS – Programs Management.

Note: The patients who have TB Program Start Date (“Ficha de Seguimento”) or TB Program Enrollment Date (OpenMRS-Programs) within the reporting period are also considered as screened (Positive Screening) regardless a) and b).

If the patient has been enrolled in the TB program on the Open MRS Overview screen under “Programs” and they are enrolled in a TB program, The Treatment Start Date field is populated with the date within the

reporting criteria, the patient is considered screened for TB (this was based on discussions with the TB clinical staff from a PEPFAR partner meeting, where clinical partners indicated the Ficha de Sequimento is not populated, but TB information from the TB register book is captured in EPTS in the program screen.



8. TB Screening Result: Positive Screening (at least one positive screen during the period) or Negative Screening (no positive screen during the period):

Positive Screening:

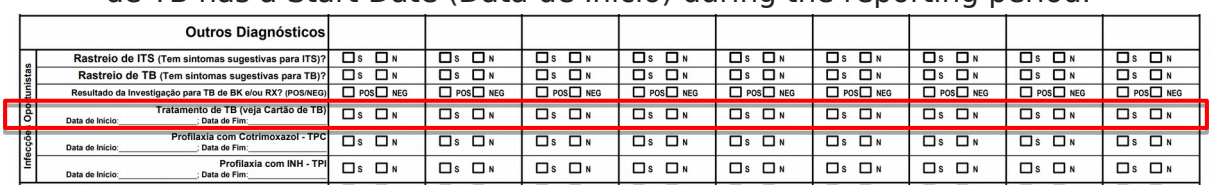
- Ficha de Seguimento: at least one "S" (Yes) for "Rastreio TB" selected during the reporting period; OR
- Ficha de Seguimento: at least one "POS" or "NEG" selected for "Resultado da Investigação para TB de BK e/ou RX?" during reporting period; OR
- Ficha de Seguimento: "TB Program Start Date" (Data Inicio) within the reporting period; OR
- TB Program: "TB Program Enrollment Date" (Data de Admissão) within the reporting period;

Negative Screening:

- Ficha de Seguimento: no "S" (Yes) selected for "Rastreio TB" during the reporting period; AND
- Ficha de Seguimento: no "POS" or "NEG" selected for "Resultado da Investigação para TB de BK e/ou RX?" during reporting period; AND
- Ficha de Seguimento: without "TB Program Start Date" (Data Inicio) within the reporting period; AND
- TB Program: without "TB Program Enrollment Date" (Data de Admissão) within the reporting period.

9. Patients are considered as started TB treatment if

- In Patient Clinical Record of ART - Ficha de Seguimento, Tratamento de TB has a Start Date (Data de Início) during the reporting period.



- Or In OpenMRS – Programs, TB Programs has an Enrollment Date (Data de Admissão) during the reporting period.

10. All transferred-out patients during reporting period should be removed from Denominator except if the patient is in the Numerator. i.e. has started the TB Treatment.

11. All patients who started the TB Treatment in previous reporting period (6months) should be excluded from Denominator.

12. The PEPFAR MER Reports in OpenMRS are named “PEPFAR MER 2.3 Quarterly” report for quarterly reporting (Q1, Q2, Q3, Q4), “PEPFAR MER 2.3 Semi-Annual” report for semi-annual reporting (S1, S2), and “PEPFAR MER 2.3 Annual”, report for annual (APR) reporting.

3.2 Report Properties

Property	Description
Name	“PEPFAR MER 2.3 Semi-Annual”
Indicator Name	TX_TB Indicator
Description	The TX_TB indicator reports the proportion of patients on ART who screened for TB and began treatment for TB in the 6-month period (Semiannual Report)
Parameters	Location: <Health Facility> Date Range: ● S1: September 21st - March 20th ● S2: March 21st - September 20th
Report Output	Attached

3.3 Report Functional Requirements

Requirement #	Category/ Functional Area	Requirement
TX_TB_FR1	Reports	The system will generate the TX_TB indicator report under “PEPFAR MER 2.3 Semi-Annual” for selected reporting period (start and end date) and specific location (health facility) with Denominator and Numerator.
TX_TB_FR2	Indicator denominator: Patients on ART screened for TB	The system will generate the TX_TB indicator denominator as the number of patients on ART who were screened for TB symptoms at least once during the reporting period with specified disaggregation as following: ● Include all patients who during the reporting period had in “Patient Clinical Record of ART - Ficha de Seguimento (adults and children)”: o at least one “S” or “N” selected for TB Screening (Rastreio de TB) during reporting period consultations; OR o at least one “POS” or “NEG” selected for “Resultado da Investigação para TB de BK e/ou RX?” during reporting period consultations; OR o TB Treatment (Tratamento de TB) start date within the reporting period; OR o TB Program Enrollment date within the reporting period. AND

		● Exclude all patients on ART who were transferred out during the reporting period except patients who started TB treatment during the reporting period (Numerator – TX_TB_FR3). AND ● Exclude all patients on ART who started TB Treatment (TX_TB_FR3) at any point in the previous 6 months before to the start date of the reporting period.
TX_TB_FR3	Indicator numerator: Patients on ART who started TB Treatment	The system will generate the TX_TB indicator numerator as the number of patients on ART who were diagnosed with TB and started on anti-TB treatment during the reporting period as following: ● Include all patients who in "Patient Clinical Record of ART - Ficha de Seguimento (adults and children)" have at least TB Treatment (Tratamento de TB) Start Date (Data de Início) within the reporting period. AND ● Include all patients who are enrolled in TB Program with enrollment Date (Data de Admissão) within the reporting period; AND ● Exclude all patients on ART who started TB Treatment (TX_TB_FR3) at any point in the previous 6 months before to the start date of the reporting period.
TX_TB_FR4	Indicator Disaggregation- denominator	The system will generate the TX_TB indicator denominator with following disaggregation: All ART patients screened for TB (**TX_TB_FR2**) ● Patients New on ART: Positive Screening o Sex (M/F) o Age (<15, 15+, unknown age) ● Patients New on ART: Negative Screening o Sex (M/F) o Age (<15, 15+, unknown age) ● Patients Previously on ART: Positive Screening o Sex (M/F) o Age (<15, 15+, unknown age) ● Patients Previously on ART: Negative Screening o Sex (M/F) o Age (<15, 15+, unknown age)
TX_TB_FR5	Indicator Disaggregation- numerator	The system will generate the TX_TB indicator numerator with following disaggregation: All patients diagnosed with TB and started on anti-TB treatment (**TX_TB_FR3**) ● Patients New on ART o Sex (M/F) o Age (<15, 15+, unknown age) ● Patients Previously on ART o Sex (M/F) o Age (<15, 15+, unknown age)
TX_TB_FR6	Disaggregation- Patients New on ART	The system will identify patients New on ART (denominator and numerator), as those who initiated the treatment, independently of the HF where the treatment initiated, during the reporting as following: ● All patients who have their first drugs pick up date set in Pharmacy form (FILA), except transferred-in patients, during the reporting period; ● All patients who have initiated the drugs (ARV PLAN = START

		DRUGS) during the pharmacy or clinical visits, except transferred-in patients, during the reporting period; ● All patients who have the first historical start drugs date set, except transferred-in patients, during the reporting period in Pharmacy Tool (FILA) or Clinical tools (Ficha de Seguimento Adulto and Ficha de Seguimento Pediatria); ● All patients enrolled in ART Program during the reporting period; ● Exclude all Patients who o were transferred in from another facility and do not have ART Initiation Date o were transferred in from another facility and have ART Initiation Date but not within the reporting period o re-initiated the treatment (its implicit, do not consider) Ensure that the ART start date is truly the first occurrence in the reporting period. This is to guard against situations of patients that for some reason have more than one ART start date registered in the system.
TX_TB_FR7	Disaggregation- Patients Previously on ART	The system will identify patients who were already on ART (denominator and numerator) as following: ● All patients who have initiated the drugs (ARV PLAN = START DRUGS) at the pharmacy or clinical visits by end of reporting period. ● All patients who have historical start drugs date set in in Pharmacy (FILA) or Clinical forms (Ficha de Seguimento Adulto and Ficha de Seguimento Pediatria) by end of reporting period. ● All patients enrolled in ART Program by end of reporting period. ● All patients who have picked up drugs by end of reporting period. Excluding: ● Patients newly enrolled on ART (TX_TB_FR6)
TX_TB_FR8	Disaggregation- Positive Screening	The system will identify patients with positive screening (denominator) as following: ● all patients with at least one “S” (Yes) selected for “Rastreio TB” (Ficha de Seguimento) during the reporting period; or ● at least one “POS” or “NEG” selected for “Resultado da Investigação para TB de BK e/ou RX?” (Ficha de Seguimento) during reporting period. ● TB Treatment Start Date (Ficha de Seguimento) within reporting period. ● TB Treatment enrollment Date (OpenMRS Programs) within reporting period.
TX_TB_FR9	Disaggregation- Negative Screening	The system will identify patients with negative screening (denominator) as following: ● all patients without any “S” (Yes) selected for “Rastreio TB” (Ficha de Seguimento during the reporting period and ● without any “POS” or “NEG” selected for “Resultado da Investigação para TB de BK e/ou RX?” (Ficha de Seguimento) during reporting period. ● without any TB Treatment Start Date (Ficha de Seguimento)

		within reporting period. ● without TB Treatment enrollment Date (OpenMRS Programs) within reporting period. OR All patients screened except patients who were screened positive.
TX_TB_FR10	Patients Disaggregation- Sex	The system will identify patients sex disaggregation as per information registered in the patient record as male or as female.
TX_TB_FR11	Patients Disaggregation- Age	The system will identify patients age disaggregation as following: ● Patients with birth date information registered in the system should be calculated the age of the patient at the end date of reporting period (reporting end date minus birthdate / 365). Patients without birth date information should be considered in unknown age.
TX_TB_FR12	Reporting Period	The user will enter as input parameters the "reporting start date" and "reporting end date". The "reporting start date" is defined by the beginning of the correspondent semiannual reporting period. The "reporting end date" is defined by the end of the reporting period. S1 September 21st - March 20th S2 March 21st - September 20th

4 Testing Scenarios

To be completed

September 21, 2018 – March 20, 2019

Patient	Datas das Consultas	Datas das Consultas	EPTS Program TB Drug Treatment Start Date		Patient included in TX TB?
	Ficha de Seguimento Restreio de TB (S/N)	Ficha de Seguimento Resultado da Investigacao para TB de BK (pos/neg)			
1	September 20, 2018 Value is S	No information	No information		No, outside of reporting period
2	September 20, 2018 Value is N	No information	No information		No, outside of reporting period
3	October 20, 2018 Value is S	No information	No information		Yes
4	October 20, 2018 Value is N	No information	No information		Yes
5	March 20, 2019 Value is S	No information	No information		Yes
6	March 20, 2019	No information	No		Yes

	Value is N		information		
7	September 20, 2018 Value is S	September 15, 2018 POS	No information		No
8	September 20, 2018 Value is N	September 15, 2018 NEG	No information		No
9	October 20, 2018 Value is S	November 15, 2018 POS	No information		Yes
10	October 20, 2018 Value is N	December 15, 2018 NEG	No information		Yes
	March 20, 2019 Value is S	March 20, 2019 POS	No information		Yes
	March 20, 2019 Value is N	March 21, 2019 POS	No information		Yes
	No information	September 20, 2018 POS	No information		
	No information	September 20, 2018 NEG	No information		
	No information	October 20, 2018 POS	No information		
	No information	October 20, 2018 NEG	No information		
	No information	March 20, 2019 POS	No information		
	No information	March 20, 2019 NEG	No information		
	No information	September 20, 2018 POS	No information		
	No information	September 20, 2018 NEG	No information		
	No information	October 20, 2018 POS	No information		
	No information	October 20, 2018 NEG	No information		
	No information	March 20, 2019 POS	No information		
	No information	March 20, 2019 NEG	No information		
	No information	March 21, 2019 POS	No information		
	No information	March 21, 2019 NEG	No information		
	No information	No information	TB Enrollment Date September 20, 2018		
	No information	No information	TB Enrollment Date September		

			21, 2018		
	No information	No information	TB Enrollment Date November 20, 2018		
	No information	No information	TB Enrollment Date December 20, 2018		
	No information	No information	TB Enrollment Date March 20, 2019		
	No information	No information	TB Enrollment Date March 21, 2018		
	No information	No information	TB Enrollment Date September 20, 2018		
	No information	No information	TB Enrollment Date September 20, 2018		
	September 20, 2018 Value is S	No information	TB Enrollment Date September 20, 2018		
	September 20, 2018 Value is N	No information	TB Enrollment Date September 21, 2018		
	October 20, 2018 Value is S	No information	TB Enrollment Date November 20, 2018		
	October 20, 2018 Value is N	No information	TB Enrollment Date December 20, 2018		
	March 20, 2019 Value is S	No information	TB Enrollment Date March 20, 2019		
	March 20, 2019 Value is N	No information	TB Enrollment Date March 21, 2018		
	September 20, 2018 Value is S	No information	TB Enrollment Date September 20, 2018		

	September 20, 2018 Value is N	No information	TB Enrollment Date September 20, 2018		
	October 20, 2018 Value is S	September 15, 2018 POS	TB Enrollment Date September 20, 2018		
	October 20, 2018 Value is N	September 15, 2018 NEG	TB Enrollment Date September 21, 2018		
	March 20, 2019 Value is S	November 15, 2018 POS	TB Enrollment Date November 20, 2018		
	March 20, 2019 Value is N	December 15, 2018 NEG	TB Enrollment Date December 20, 2018		
	September 20, 2018 Value is S	March 20, 2019 POS	TB Enrollment Date March 20, 2019		
	September 20, 2018 Value is N	March 21, 2019 POS	TB Enrollment Date March 21, 2018		
	October 20, 2018 Value is S	September 20, 2018 POS	TB Enrollment Date September 20, 2018		
	October 20, 2018 Value is N	September 20, 2018 NEG	TB Enrollment Date September 20, 2018		
	March 20, 2019 Value is S	October 20, 2018 POS	TB Enrollment Date September 20, 2018		
	March 20, 2019 Value is N	October 20, 2018 NEG	TB Enrollment Date September 21, 2018		
	September 20, 2018 Value is S	March 20, 2019 POS	TB Enrollment Date November 20, 2018		
	September 20, 2018 Value is N	March 20, 2019 NEG	TB Enrollment Date December		

			20, 2018		
	October 20, 2018 Value is S	September 20, 2018 POS	TB Enrollment Date March 20, 2019		
	October 20, 2018 Value is N	September 20, 2018 NEG	TB Enrollment Date March 21, 2018		
	March 20, 2019 Value is S	October 20, 2018 POS	TB Enrollment Date September 20, 2018		
	March 20, 2019 Value is N	October 20, 2018 NEG	TB Enrollment Date September 20, 2018		
		March 20, 2019 POS	TB Enrollment Date September 21, 2018		
		March 20, 2019 NEG	TB Enrollment Date November 20, 2018		
		March 21, 2019 POS	TB Enrollment Date December 20, 2018		
		March 21, 2019 NEG	TB Enrollment Date February 20, 2019		

5 Annexures

A. TX_TB Indicator Guideline extract from MER 2.3 Guidance

TX_TB		
Description:	Proportion of ART patients screened for TB in the semiannual reporting period who start TB treatment.	
Numerator:	Number of ART patients who were started on TB treatment during the semiannual reporting period.	The numerator can be generated by counting the number of screened ART patients who were diagnosed with TB and started on anti-TB therapy during the reporting period.
Denominator:	Number of ART patients who were screened for TB at least once during the semiannual reporting period.	The denominator can be generated by counting the number of ART patients who were screened for TB symptoms at least once during the reporting period.
Indicator changes (MER 2.0 v2.2 to v2.3):	▪ Numerator disaggregates have been changed to capture current/new on ART by age/sex. ▪ Denominator disaggregates have been changed to capture newly enrolled vs. previously enrolled on ART by screen results by age/sex. ▪ **Denominator disaggregate has been added: "positive result returned."**	
Reporting level:	Facility	
Reporting frequency:	Semi-Annually	
How to use:	This indicator documents the TB screening of ART patients as well as the proportion who were diagnosed and started on TB therapy. The disaggregates demonstrate the cascade from screening to testing and can be used to identify gaps and challenges in TB diagnostic activities among ART patients.	
How to collect:	The denominator can be generated by counting the number of ART patients who were screened for TB symptoms at least once during the reporting period. This includes newly enrolling ART patients as well as those previously started on ART. The numerator can be generated by counting the number of screened ART patients who were diagnosed with TB and started on anti-TB therapy during the reporting period. These data should be captured in ART registers as well as additional data collection sources (e.g., facility-based TB screening registers or forms, TB specimen registers, TB microscopy result registers, GeneXpert data collection systems) that may contain relevant information (e.g., TB screening results, TB specimen testing results). Programs should modify the register as needed to easily capture this information. Documentation of symptom screening is generally collected in patient charts but may also be collected in another aggregate partner-generated data source. Screening for TB and/or initiation of anti-TB therapy might not happen at the same time that ART is started. For PLHIV new to HIV care, those who are diagnosed with TB are usually started on anti-TB therapy before they initiate ART (e.g., 2-8 weeks as per current recommendations). Regardless of when they occur relative to ART initiation, TB screening and initiation of TB therapy should be included for all patients who were currently on ART or who started ART at any time during the reporting period. Further information on how to use and collect these data is provided by WHO in the **following guidelines**: "Latent Tuberculosis Infection: Updated and Consolidated Guidelines for Programmatic Management."	
How to review for data quality:	Only one disaggregation type is used for age (coarse disaggregates). **Numerator ≥ subtotal of each of the disaggregations.**	
How to calculate annual total:	It is preferred to analyze this indicator as a snapshot indicator (i.e., the result reported at Q4) when viewing this data in conjunction with TB_PREV data; in other words, when one is analyzing the PEPFAR TB/HIV Screening Cascade. The TX_TB Denominator should not be summed over the semiannual time periods since it is a snapshot indicator that captures a clinical event (screening), not unique patients. However, note that the TX_TB Numerator, if	

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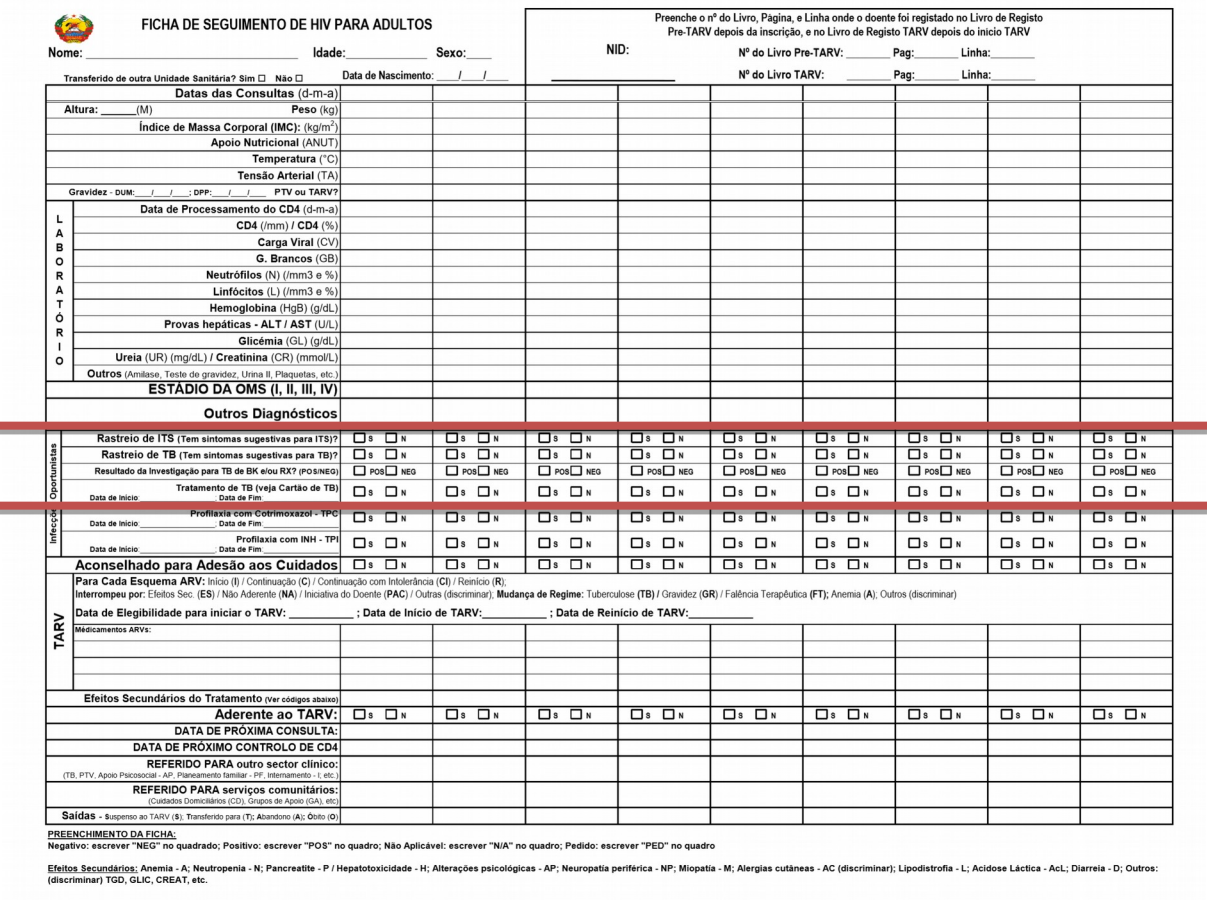
B. Patient ART Clinical Chart – "Ficha de Seguimento"



FICHA DE SEGUIMENTO DE HIV PARA ADULTOS

Nome: _____ Idade:_____ Sexo:____

Transferido de outra Unidade Sanitária? Sim ☐ Não ☐ Data de Nascimento: ___/___/___

Preenche o nº do Livro, Página, e Linha onde o doente foi registado no Livro de Registo Pre-TARV depois da inscrição, e no Livro de Registo TARV depois do inicio TARV

NID: _____ Nº do Livro Pre-TARV: _____ Pag:_____ Linha:_____

Nº do Livro TARV: _____ Pag:_____ Linha:_____

Datas das Consultas (d-m-a)										
Altura: _____(M) **Peso** (kg)										
Índice de Massa Corporal (IMC): (kg/m²)										
Apoio Nutricional (ANUT)										
Temperatura (°C)										
Tensão Arterial (TA)										
Gravidez - DUM:___/___/___; DPP:___/___/___ **PTV ou TARV?**										
LABORATÓRIO: **Data de Processamento do CD4** (d-m-a)										
CD4 (/mm) / **CD4** (%)										
Carga Viral (CV)										
G. Brancos (GB)										
Neutrófilos (N) (/mm3 e %)										
Linfócitos (L) (/mm3 e %)										
Hemoglobina (HgB) (g/dL)										
Provas hepáticas - ALT / AST (U/L)										
Glicémia (GL) (g/dL)										
Ureia (UR) (mg/dL) / **Creatinina** (CR) (mmol/L)										
Outros (Amilase, Teste de gravidez, Urina II, Plaquetas, etc.)										
ESTÁDIO DA OMS (I, II, III, IV)										
Outros Diagnósticos										
Oportunistas: **Rastreio de ITS** (Tem sintomas sugestivas para ITS)?	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
Rastreio de TB (Tem sintomas sugestivas para TB)?	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
Resultado da Investigação para TB de BK e/ou RX? (POS/NEG)	☐POS ☐NEG	☐POS ☐NEG	☐POS ☐NEG	☐POS ☐NEG	☐POS ☐NEG	☐POS ☐NEG	☐POS ☐NEG	☐POS ☐NEG	☐POS ☐NEG	☐POS ☐NEG
Tratamento de TB (veja Cartão de TB) Data de Início: _____ Data de Fim: _____	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
Infecção: **Profilaxia com Cotrimoxazol - TPC** Data de Início: _____ Data de Fim: _____	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
Profilaxia com INH - TPI Data de Início: _____ Data de Fim: _____	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
Aconselhado para Adesão aos Cuidados	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
TARV: **Para Cada Esquema ARV:** Início (I) / Continuação (C) / Continuação com Intolerância (CI) / Reinício (R); **Interrompeu por:** Efeitos Sec. (ES) / Não Aderente (NA) / Iniciativa do Doente (PAC) / Outras (discriminar), **Mudança de Regime:** Tuberculose (TB) / Gravidez (GR) / Falência Terapêutica (FT); Anemia (A); Outros (discriminar)										
Data de Elegibilidade para iniciar o TARV: _____ ; **Data de Início de TARV:**_____ ; **Data de Reinício de TARV:**_____										
Medicamentos ARVs:										
Efeitos Secundários do Tratamento (Ver códigos abaixo)										
Aderente ao TARV:	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
DATA DE PRÓXIMA CONSULTA:										
DATA DE PRÓXIMO CONTROLO DE CD4										
REFERIDO PARA outro sector clínico: (TB, PTV, Apoio Psicosocial - AP, Planeamento familiar - PF, Internamento - I, etc.)										
REFERIDO PARA serviços comunitários: (Cuidados Domiciliários (CD), Grupos de Apoio (GA), etc)										
Saídas - Suspenso ao TARV (**S**); Transferido para (**T**); Abandono (**A**); Óbito (**O**)										

PREENCHIMENTO DA FICHA:
Negativo: escrever "NEG" no quadrado; Positivo: escrever "POS" no quadro; Não Aplicável: escrever "N/A" no quadro; Pedido: escrever "PED" no quadro

Efeitos Secundários: **Anemia - A; Neutropenia - N; Pancreatite - P / Hepatotoxicidade - H; Alterações psicológicas - AP; Neuropatia periférica - NP; Miopatia - M; Alergias cutâneas - AC (discriminar); Lipodistrofia - L; Acidose Láctica - AcL; Diarreia - D; Outros: (discriminar) TGD, GLIC, CREAT, etc.**

C. Open MRS Overview Screen

OpenMRS

Currently logged in as Super User | Log out | My Profile | Help

Home Find/Create Patient Dictionary Cohort Builder
Reporting Administration

Patient saved

Maria Rein NID (SERVICO TARV): **00000000/17/00002**

99 yrs (~ Jan 1, 1920) PersonAttributeType.:

BMI: ? **(Weight: , Height:)** CD4: | Regimen:

Start Visit

Overview **Visits** **Demographics** **Graphs** **Form Entry**

Patient Flags

Patient Actions

Programs

Not enrolled in any programs

Add a new program

Most Recent Observations

HISTORICAL DRUG START DATE:	**None** New
REGIMEN:	**None** New
CURRENT WHO HIV STAGE:	**None** New
TUBERCULOSIS DRUG TREATMENT START DATE:	**None** New

Relationships

None

Add a new relationship

Allergies

None

Add Allergy

Problem List

None