EPTS OpenMRS

Reports Requirements
Indicator Specification Document
DSD – Indicators
IM ER Report

Version 1.4

Version

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Approvals and Sign-off

Approvals Panel

Version	Approver	Approved by	Date
1.4	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 – IM ER Report
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Authors Signature

Version	Authors	Approved by	Date
1.4	FGH		
	Jembi HS		

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.

Table of Contents

I Introduction

I.a Purpose

The purpose of this document is to capture the requirements and specifications for the following **DSD Indicators:**

- Number of non-pregnant, non-breastfeeding adults (≥15) active on ART
- Number of non-pregnant, non-breastfeeding persons active on ART who participate in >=1 measured DSD model (GAAC, AF, CA, DT, FR, DC)
- Number of non-pregnant, non-breastfeeding adults active on ART whose next ART pick-up is schedule for 83-97 days after the date of their last ART drug pick-up
- Number of non-pregnant, non-breastfeeding adults active on ART whose next clinical consultation is scheduled 175-190 days after the date of the last clinical consultation
- Number of non-pregnant, non-breastfeeding adults (≥15) active on ART that are participating in GAAC at the end of the month prior to month of results submission deadline
- Number of Adults and Children Not Eligible for DSD : this is to QA check, to see if Not Eliglible patients are enrolled in any DSD model.

These indicators are reported from the OpenMRS EPTS system in use by the PEPFAR Clinical partners to capture patient level data in retrospective mode at the health facilities.

Some of these indicators are included in the report “Avaliacao de Retencao Precoce CDC”. When they are added to the IM ER report, they will be removed from the “Avaliacao de Retencao Precoce CDC” report in EPTS.

I.b Scope and Key Assumptions

This document defines the functional and technical requirements to generate the indicator in an OpenMRS Report.

The key Assumptions are:
All patients captured in the OpenMRS system are HIV positive.
All patients captured in the OpenMRS system have been on antiretroviral therapy (ART) at some time.
All transferred in patients are HIV positive and are on PRE-ART or ART.
One patient may be in more than one DSD and will only be counted once.
DSD is not documented currently in EPTS in the current tools, but is captured in the Ficha Mestra (Mastercard), which is in EPTS but hasn’t been implemented in health facilities. Therefore, the algorithm for all DSD indicators will look at Master Card data fields first for information regarding DSD program enrollment and then look at the current tools.

I.c References

National Guidelines for Stable Patients (Attached)

WHO clinical staging guidelines
https://www.who.int/hiv/pub/guidelines/arv2013/annexes/WHO_CG_annex_1.pdf

MasterCard - Ficha Clínica
Ficha de Seguimento
Ficha de Seguimento in EPTS
EPTS Program enrollment in EPTS
FILA

II. Indicator Definition

II.a Description

DSD Indicators report the number and percentage of adults and children active on ART eligible (denominator) and enrolled (numerator) in the following DSD models:

1. GAAC
2. AF (Abordagem Familiar - Family Planning)
3. CA (Clubes de Adesão – Adherence Clubs)
4. PU (Paragem Única)
5. FR (Fluxo Rápido)
6. DT (Dispensa Trimestral - 3MDD)
7. DC (Dispensa Comunitária)

II.b Denominator and Numerator

The DSD Indicators Denominators are the following:

- D1: Number of active patients on ART Eligible for DSD (Stable)
- D2: Number of active patients on ART Not Eligible for DSD (Unstable)

The DSD Indicators Numerators are the following:

- N1: Number of active patients on ART who participate in >=1 measured DSD model (GAAC, AF, CA, DT, FR, DC)
- N2: Number of active on ART whose next ART pick-up is schedule for 83-97 days after the date of their last ART drug pick-up
- N3: Number of active patients on ART whose next clinical consultation is scheduled 175-190 days after the date of the last clinical consultation
- N4: Number of active patients on ART that are participating in GAAC at the end of the month prior to month of results submission deadline.
- N5: Number of Adult and Children Not Eligible for DSD

II.d DSD Hierarchy

A patient can be enrolled in more than one DSD program with the exception of GAAC. For the DSD report a patient will only be associated with one program, therefore a hierarchy has been defined to determine which program to associate a patient enrolled in more than one.

The hierarchy is below. For example, if a patient is enrolled in AF and DC, they will be categorized in AF, as AF is at the top of the hierarchy.

1. GAAC
2. AF (Abordagem Familiar - Family Planning)
3. CA (Clubes de Adesão – Adherence Clubs)

4. PU (Paragem Única)
5. FR (Fluxo Rápido)
6. DT (Dispensa Trimestral - 3MDD)
7. DC (Dispensa Comunitária)

II.c Indicator Reporting Level and Frequency

Not applicable

II.d Indicator Primary Sources

The DSD indicators are generated from information captured in the following forms in EPTS:

- Ficha Mestra
- Facility ART registers:
  - Ficha de Seguimento de Adulto
  - Ficha de Seguimento Pediátrico
- FILA (Pharmacy)

II.e Population

DSD Indicators population **includes:**

- D1: Number of adults and children currently receiving antiretroviral therapy (ART) (**TX-CURR**) and who are considered Stable according to below defined criteria (Table1)
- D2: Number of adults and children currently receiving antiretroviral therapy (ART) (**TX-CURR**) and Unstable (except stable)

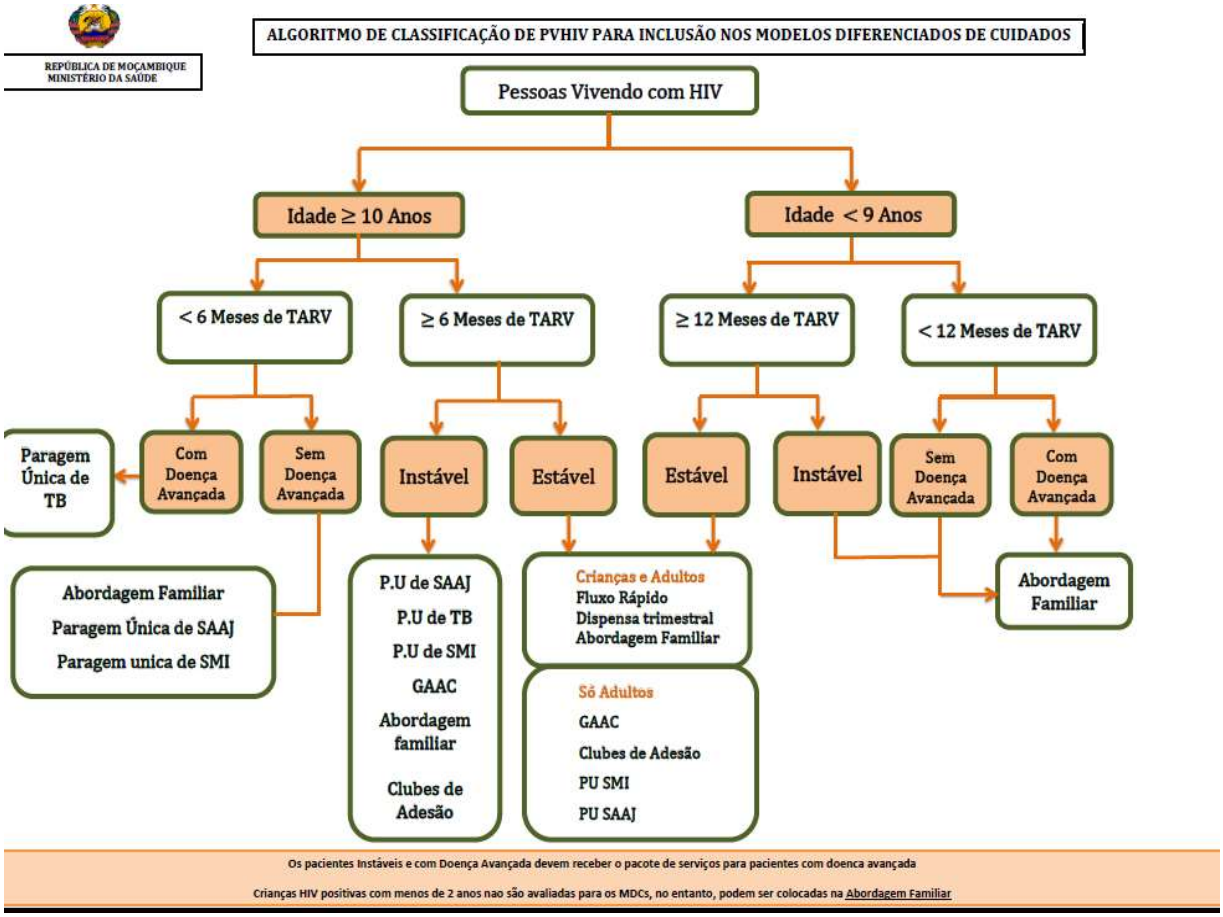
Table 1 Patient Clinical State Stable Criteria

Patient Clinical State	Age	Viral Load (if Available)	If Viral Load Not Available
Stable	<2 years	Not recommended	
	2 – 4 years	• On ART for at least 12 months • One VL< 1000 copies/ml in last ART year • No active clinical condition of WHO stage III or IV • No suggestive factors of poor adherence (last 3 drugs pick up or regular clinical visits)	• On ART for at least 12 months • CD4 result > 750 cels/mm3 or > 15% in in last ART year • No suggestive factors of poor adherence (last 3 drugs pick up or regular clinical visits) • No adverse reactions to medications that require regular monitoring

	5 – 9 years	• No adverse reactions to medications that require regular monitoring	• On ART for at least 12 months • CD4 result > 200 cels/mm3 in last ART year • No suggestive factors of poor adherence (last 3 drugs pick up or regular clinical visits) • No adverse reactions to medications that require regular monitoring
	>/= 10 years	▪ On ART for at least 6 months ▪ One VL< 1000 copies/ml in last ART year ▪ No active clinical condition of WHO stage III or IV ▪ No suggestive factors of poor adherence (last 3 drugs pick up or regular clinical visits) ▪ No adverse reactions to medications that require regular monitoring ▪	•

According to the patient age and clinical state (stability) he/she might be enrolled in one or more measured **DSD model,** as described below in Figure 1**:**

1. GAAC
2. AF (Abordagem Familiar - Family Planning)
3. CA (Clubes de Adesão – Adherence Clubs)
4. PU (Paragem Única)
5. FR (Fluxo Rápido)
6. DT (Dispensa Trimestral - 3MDD)
7. DC (Dispensa Comunitária)



II.f Disaggregation

The **DSD Indicators** should be reported by the following disaggregation's:

- **D1: Number of active patients on ART Eligible for DSD (Stable):**
  - Total
  - Non-pregnant and Non-Breastfeeding Adults (>=15)
  - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
- **D2: Number of active patients on ART Not Eligible for DSD (Unstable)**
  - Total
  - Non-pregnant and Non-Breastfeeding Adults (>=15)
  - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
  - Breastfeeding (exclude pregnant)
  - Pregnant (include breastfeeding)

- **N1: Number of active patients on ART who participate in >=1 measured DSD model (GAAC, AF, CA, DT, FR, DC, PU)**

- Total
- Stable:
  - Subtotal
  - Non-pregnant and Non-Breastfeeding Adults (>=15)
  - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
- Unstable:
  - Subtotal
  - Non-pregnant and Non-Breastfeeding Adults (>=15)
  - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
  - Breastfeeding (exclude pregnant)
  - Pregnant (include breastfeeding)

- **N2: Number of active on ART whose next ART pick-up is schedule for 83-97 days after the date of their last ART drug pick-up**

  - Total
  - Stable:
    - Subtotal
    - Non-pregnant and Non-Breastfeeding Adults (>=15)
    - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
  - Unstable:
    - Subtotal
    - Non-pregnant and Non-Breastfeeding Adults (>=15)
    - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
    - Breastfeeding (exclude pregnant)
    - Pregnant (include breastfeeding)

- **N3: Number of active patients on ART whose next clinical consultation is scheduled 175-190 days after the date of the last clinical consultation**

  - Total
  - Stable:
    - Subtotal
    - Non-pregnant and Non-Breastfeeding Adults (>=15)
    - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
  - Unstable:
    - Subtotal
    - Non-pregnant and Non-Breastfeeding Adults (>=15)
    - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
    - Breastfeeding (exclude pregnant)
    - Pregnant (include breastfeeding)

- **N4: Number of active patients on ART that are participating in GAAC at the end of the month prior to month of results submission deadline.**
  - Total

- Stable:
  - Subtotal
  - Non-pregnant and Non-Breastfeeding Adults (>=15)
  - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)

- Unstable:
  - Subtotal
  - Non-pregnant and Non-Breastfeeding Adults (>=15)
  - Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14)
  - Breastfeeding (exclude pregnant)
  - Pregnant (include breastfeeding)

II.h Report Output

The report output for DSD indicators can be found as attachment

III. Requirements Definition

III.a Key Assumptions

The key assumptions for **DSD Indicators** 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 have initiated antiretroviral therapy (ART) at some time.
3. The primary sources for **DSD** are "Ficha Mestra" (Annex 0) "FILA" (Annex 1), "Ficha de Seguimento do Adulto"(Annex 2), "Ficha de Seguimento de Pediatria (Annex 3).
4. Active patients on ART criteria follow the same as TX-Curr criteria.
5. DSD Indicators will be added in already existing report "IM-ER Report"
6. DSD Indicators Numerator are mutually exclusive according to the following criteria:
   <TO BE ADDED THE TABLE WITH MODELS PRIORIZATION – CDC to PROVIDE THIS INFORMATION>

FGH proposal:

1. GAAC: using the existing GAAC forms in OPENMRS to categorize patients

2. DT: to all patients whose next ART pick-up is schedule for 83-97 days after the date of their last ART drug pick-up and as NOT enrolled in GAAC

3. FR: to all patients whose next clinical consultation is scheduled 175-190 days after the date of the last clinical consultation and cannot be classified as DT or GAAC

IV.b List of Functional Requirements

Requirement #	Category/ Functional Area	Requirement
DSD_FR1	Reports	The system will generate the DSD indicators report for selected reporting period (start and end date) and specific location (health facility) with Denominator and Numerator.
DSD_FR2	Indicator denominator	The system will generate following **DSD denominators:** • **D1: Number of active patients on ART Eligible for DSD (Stable)** • **D2: Number of active patients on ART Not Eligible for DSD (UnStable)**
DSD_FR3	Indicator denominator-D1	The system will generate "**D1: Number of active patients on ART Eligible for DSD (Stable)"** as following: • All patients (>=2 years) currently receiving antiretroviral therapy and who are considered stable according to Table 1 Criteria: o On ART for at least 12 months (if patients age >=2 and <=9) **or** at least 6 months (if patients age >=10) **and** o One VL< 1000 copies/ml in last ART year (only if VL exists) **and** o Only if VL does not exist: ▪ CD4 result > 750 cels/mm3 or > 15% in last ART year (if patients age >=2 and <=4) ▪ CD4 result > 200 cels/mm3 in last ART year (if patients age >=5 and <=9 o No active clinical condition of WHO stage III or IV **and** o No suggestive factors of poor adherence (last 3 drugs pick up or regular clinical visits) **and** o No adverse reactions to medications that require regular monitoring
DSD_FR4	Indicator denominator-D2	The system will generate "**D2: Number of active patients on ART Not Eligible for DSD (UnStable)"** as following: • All patients (>=2 years) currently receiving antiretroviral therapy except the stables (DSD_FR3)
DSD_FR5	Indicator numerator	The system will generate following **DSD numerators:** • N1: Number of active patients on ART who participate in >=1 measured DSD model (GAAC, AF, CA, DT, FR, DC, PU) • N2: Number of active on ART whose next ART pick-up is schedule for 83-97 days after the date of their last ART drug pick-up • N3: Number of active patients on ART whose next clinical consultation is scheduled 175-190 days after the date of the last clinical consultation • N4: Number of active patients on ART that are participating in GAAC at the end of the month prior to month of results submission deadline.

DSD_FR6	Indicator Disaggregation-Denominator	The system will generate the **DSD denominator** with the following disaggregation: • **D1: Number of active patients on ART Eligible for DSD (Stable):** o Total o Non-pregnant and Non-Breastfeeding Adults (>=15) o Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) • **D2: Number of active patients on ART Not Eligible for DSD (Unstable)** o Total o Non-pregnant and Non-Breastfeeding Adults (>=15) o Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) o Breastfeeding (exclude pregnant) o Pregnant (include breastfeeding)
DSD_FR7	Indicator Disaggregation-Numerator	The system will generate the **DSD denominator** with the following disaggregation: • **N1: Number of active patients on ART who participate in >=1 measured DSD model (GAAC, AF, CA, DT, FR, DC, PU)** o Total o Stable: ▪ Subtotal ▪ Non-pregnant and Non-Breastfeeding Adults (>=15) ▪ Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) o Unstable: ▪ Subtotal ▪ Non-pregnant and Non-Breastfeeding Adults (>=15) ▪ Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) ▪ Breastfeeding (exclude pregnant) ▪ Pregnant (include breastfeeding) • **N2: Number of active on ART whose next ART pick-up is schedule for 83-97 days after the date of their last ART drug pick-up** o Total o Stable: ▪ Subtotal ▪ Non-pregnant and Non-Breastfeeding Adults (>=15) ▪ Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) ▪ o Unstable: ▪ Subtotal ▪ Non-pregnant and Non-Breastfeeding Adults (>=15) ▪ Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) ▪ Breastfeeding (exclude pregnant) ▪ Pregnant (include breastfeeding) • **N3: Number of active patients on ART whose next clinical consultation is scheduled 175-190 days after the date of the last clinical consultation** o Total o Stable: ▪ Subtotal ▪ Non-pregnant and Non-Breastfeeding Adults (>=15)

		▪ Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) o Unstable: ▪ Subtotal ▪ Non-pregnant and Non-Breastfeeding Adults (>=15) ▪ Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) ▪ Breastfeeding (exclude pregnant) ▪ Pregnant (include breastfeeding) • **N4: Number of active patients on ART that are participating in GAAC at the end of the month prior to month of results submission deadline.** o Total o Stable: ▪ Subtotal ▪ Non-pregnant and Non-Breastfeeding Adults (>=15) ▪ Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) ▪ 14) o Unstable: ▪ Subtotal ▪ Non-pregnant and Non-Breastfeeding Adults (>=15) ▪ Non-pregnant and Non-Breastfeeding Children (2-4, 5-9, 10-14) ▪ Breastfeeding (exclude pregnant) ▪ Pregnant (include breastfeeding)
DSD_FR12	Patients disaggregation – pregnant	The system will identify women patients who are **pregnant** as following: ● Patients marked as "PREGNANT" in the initial consultation or follow-up consultation during the period range or ● Patients who have "Number of weeks Pregnant" registered in the initial or follow-up consultation during the period range or ● Patients who have "Pregnancy Due Date" registered in the initial or follow-up consultation during period range or ● Patients enrolled on PTV/ETC program during the period range. ● Period range: o start_date = reporting period start date o end_date = reporting period end date
DSD_FR13	Patients disaggregation - breastfeeding	The system will identify women patients who are **breastfeeding** as following: All patients that are female and ● Patients who have the "Delivery date" registered in the initial or follow-up consultations and where the delivery date is between the period range or ● Patients who started ART for being breastfeeding as specified in "CRITÉRIO PARA INÍCIO DE TRATAMENTO ARV" in the initial or follow-up

		consultations that occurred between period range or ● Patients who have been registered as breastfeeding in follow up consultation during the period range. ● Patients enrolled on PTV/ETC program with state 27 (gave birth) during the period range. ● Excluding patients that are pregnant ● Period range: ○ start_date = reporting period start date ○ end_date = reporting period end date
DSD_FR14	Reporting Period	The user will enter as input parameters the “reporting start date” and “reporting end date”.

VI. ANNEXES

Who clinical guidelines staging

EPTS does not capture opportunistic infections with the exception of Karposi Sarcoma and TB.

WHO Stages

The WHO clinical guidelines are captured in the Ficha de Seguimento where the clinician can indicate if the patient has met Stage 1 – 4 during a consultation. This is located in the Field / Row called “Estadio Da OMS (I,II, III, IV).

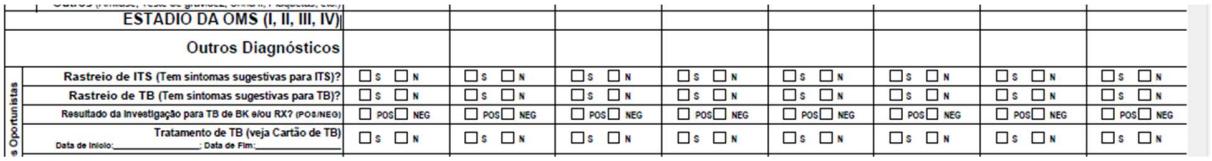
Kaposi Sarcoma

The Ficha de Seguimento contains a field called “Other Conditions” / “Outros Diagnosticos”.

In EPTS the user can select Karposi’s Sarcoma as an “Outros Diagnosticos”

RPR	○ Positivo ○ Negativo
ESTADIO OMS	Último Estadio [ESTADIO III OMS]
Outros diagnósticos	☐ Malária ☐ Anemia ☐ Malnutrição ☐ Leucemia ☐ Encefalopatia ☐ Otite ☐ Febre ☐ Sarcoma de Kaposi ☐ Diarreia ☐ Falência Terapeutica
Infecções Oportunistas	
Rastreio de ITS(Tem sintomas sugestivas de ITS)?	○ Sim ○ Não
Rastreio de TB(Tem sintomas sugestivas de TB)?	○ Sim ○ Não
Resultado para a Investigação para TB de BK e/ou RX?	○ Positivo ○ Negativo
Tratamento de TB (Veja Cartão de TB): Data Inicio: Data Fim:	○ Sim ○ Não
Profilaxia com Cotrimoxazol - TPC: Data Inicio: Data Fim:	○ Sim ○ Não
Profilaxia com INH - TPI: Data Inicio: Data Fim:	○ Sim ○ Não
Aconselhado para Adesão aos Cuidados:	○ Sim ○ Não

Ficha de Seguimento:

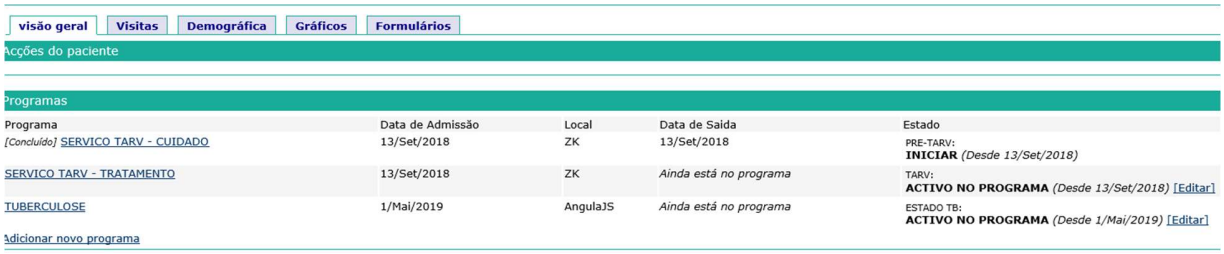


	ESTADIO DA OMS (I, II, III, IV)								
	Outros Diagnósticos								
s Oportunistas	Rastreio de ITS (Tem sintomas sugestivas para ITS)?	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
	Rastreio de TB (Tem sintomas sugestivas para TB)?	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N	☐S ☐N
	Resultado da investigação 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
	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

TB

TB information is captured in the Ficha De Seguimento. If a patient is diagnosed with TB the patient will be receiving treatment for TB indicated by the Tratamento de TB having a value of S / Yes and the Date of Treatment being populated during the reporting period

Or the patient can be enrolled in the TB program under the visio geral screen in EPTS where the date of admission is within the reporting period



visão geral | Visitas | Demográfica | Gráficos | Formulários

Acções do paciente

Programas

Programa	Data de Admissão	Local	Data de Saida	Estado
[Concluído] SERVICO TARV - CUIDADO	13/Set/2018	ZK	13/Set/2018	PRE-TARV: **INICIAR** *(Desde 13/Set/2018)*
SERVICO TARV - TRATAMENTO	13/Set/2018	ZK	*Ainda está no programa*	TARV: **ACTIVO NO PROGRAMA** *(Desde 13/Set/2018)* [Editar]
TUBERCULOSE	1/Mai/2019	AngulaJS	*Ainda está no programa*	ESTADO TB: **ACTIVO NO PROGRAMA** *(Desde 1/Mai/2019)* [Editar]

Adicionar novo programa

Clinical stage 3 Adults

Unexplained severe weight loss (>10% of presumed or measured body weight)
Unexplained chronic diarrhoea for longer than 1 month
Unexplained persistent fever (intermittent or constant for longer than 1 month)
Persistent oral candidiasis
Oral hairy leukoplakia
Pulmonary tuberculosis
Severe bacterial infections (such as pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, bacteraemia)
Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis

Unexplained anaemia (<8 g/dl), neutropaenia (<0.5 x 10^9/l) and/or chronic thrombocytopaenia (<50 x 10^9/l)

Clinical Stage 3 Children

Unexplained moderate malnutrition[b] not adequately responding to standard therapy
Unexplained persistent diarrhoea (14 days or more)
Unexplained persistent fever (above 37.5°C, intermittent or constant, for longer than one 1 month)
Persistent oral candidiasis (after first 6 weeks of life)
Oral hairy leukoplakia
Lymph node tuberculosis
Pulmonary tuberculosis
Severe recurrent bacterial pneumonia
Acute necrotizing ulcerative gingivitis or periodontitis
Unexplained anaemia (<8 g/dl), neutropaenia (<0.5 x 10^9/l) or chronic thrombocytopaenia (<50 x 10^9/l)

Clinical Stage 4 Adult

HIV wasting syndrome
Pneumocystis (jirovecii) pneumonia
Recurrent severe bacterial pneumonia
Chronic herpes simplex infection (orolabial, genital or anorectal of more than 1 month's duration or visceral at any site)
Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs)
Extrapulmonary tuberculosis
Kaposi sarcoma
Cytomegalovirus infection (retinitis or infection of other organs)
Central nervous system toxoplasmosis
HIV encephalopathy
Extrapulmonary cryptococcosis, including meningitis
Disseminated nontuberculous mycobacterial infection
Progressive multifocal leukoencephalopathy
Chronic cryptosporidiosis
Chronic isosporiasis
Disseminated mycosis (extrapulmonary histoplasmosis, coccidioidomycosis)
Lymphoma (cerebral or B-cell non-Hodgkin)
Symptomatic HIV-associated nephropathy or cardiomyopathy
Recurrent septicaemia (including nontyphoidal Salmonella)
Invasive cervical carcinoma
Atypical disseminated leishmaniasis

Clinical Stage 4, Children

Unexplained severe wasting, stunting or severe malnutrition[d] not responding to standard therapy
Pneumocystis (jirovecii) pneumonia
Recurrent severe bacterial infections (such as empyema, pyomyositis, bone or joint infection, meningitis, but excluding pneumonia)
Chronic herpes simplex infection (orolabial or cutaneous of more than 1 month's duration or visceral at any site)
Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs)
Extrapulmonary tuberculosis
Kaposi sarcoma
Cytomegalovirus infection (retinitis or infection of other organs with onset at age more than 1 month)
Central nervous system toxoplasmosis (after the neonatal period)
HIV encephalopathy
Extrapulmonary cryptococcosis, including meningitis
Disseminated nontuberculous mycobacterial infection
Progressive multifocal leukoencephalopathy
Chronic cryptosporidiosis (with diarrhoea)
Chronic isosporiasis
Disseminated endemic mycosis (extrapulmonary histoplasmosis, coccidioidomycosis, penicilliosis)
Cerebral or B-cell non-Hodgkin lymphoma
HIV-associated nephropathy or cardiomyopathy