

# User Guide

# PMTCT Prevention of Mother-to-Child Transmission module

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August 2011

This document is about how to use the *OpenMRS module* that manages a program which follows a pregnant woman exposed to HIV, to give her a chance of giving birth to non HIV infant. It states step by step from the first visit at the health center of the pregnant woman for ante-natal consultation to the final status of HIV of the infant born at the age of eighteen (18) months, so that any user that is familiar with software use and that is able to read and understand English, can use the PMTCT module.

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# **Abbreviations**

PMTCT	Prevention of Mother-to-Child Transmission
MOH	Ministry of Health
HIV	Human Immunodeficiency Virus
AIDS	Acquired Immunodeficiency Syndrome
OpenMRS	Open Medical Record System
ARV	Antiretroviral
ТВ	Tuberculosis
CD4	
STI	Sexually Transmitted Infection
ANC	Ante Natal Consultation
PNC	Post Natal Consultation
CSV	Comma Separated Value
PDF	Portable Document Format
WHO	World Health Organization
PCR	Polymerase Chain Reaction
KG	
CM	
TRACnet	

#### Introduction

PMTCT, Prevention of Mother-to-Child Transmission, is a program which follows pregnant women exposed to HIV, to give them a chance of giving birth to non HIV infants.

In this program, these pregnant women are followed from the first visit to the health center for antenatal consultation to the day they give birth, and then the program continue to follow the infant born until the age of eighteen (18) months. The delay of follow-up for these mothers can extend to 18 months after delivery in case they have choosen to brestfeed their own milk. Before the delivery of the infant, the mother did different tests like CD4 count, Syphilis test, TB test, Hemoglobin ... The result of these tests, constitute the basic and important information on the mother status. These results will determine when the mother can start taking necessary drugs (ARV), a give chance to the infant.

The prevention of HIV transmission from an exposed mother the result starts with an HIV/AIDS test and different STIs tests. For infected mother, an HIV patient file is open an additional tests like CD4 count, liver test and renal are also done. For HIV-negative cother living with HIV-positive partner, counseling is regularly done and an HIV test will be done and an HIV test will be done in case the status is a real away. ARV prophylaxis will be administrated to the mother and the new born as the national results of recommends. After the delivery, another thing important will be the choice of features method for the infant.

The post-natal consultation for both the mother and an HIV positive mother and an HIV negative mother in a 'n cordant couple, the mother continue to take ARV prophylaxis as long as the infant is called feeding, the infant is tested for HIV as the national protocol recommends.

In brief, the survival of the couple, mother-cn.' by providing comprehensive care including ARVs and the reduction of the transmism. Of the HIV from a mother to a child constitutes two main objectives of PMTCT.

#### Overview

In the Prevention of mother-to-child transmission module, we focused on both ante-natal consultation and post-natal consultation for the mother and the follow-up of the infant after the maternity.

We also keep following mothers in order to know those who have a certain rendez-vous for a test, to come in the maternity, HIV negative mothers in discordant couples, infants expected to come for PCR or serology test, breastfeeding or not, ...

The module offers functionality to create filters and get statistics on that, it offers also the possibility to export results of searches in different file format as reports.

#### **Installation**

- 1. Login into OpenMRS;
- 2. Click on **Administration**, in the Navigation menu;
- 3. On the right, under Modules, click on Manage Modules;



Figure 1: Manage Modules

- 4. If the module is uploaded already on the serve in a fine, use the right option "Upgrade An Existing Module" (4.a), otherwise use the left optio. Ind Module" (4.b); (You can use directly Add module and if you get a message saving "pmtct-0.1.3.omod is already associated with a loaded module.", that means the module is a uploaded on the server/machine, then use Upgrade An Existing Module);
- 6. Click Open;
- 7. Click **Upload** (4.d)and *WAIT until a ressage saying that* "**Module loaded and started successfully**" (4.e) or not shown on the cop of this page;

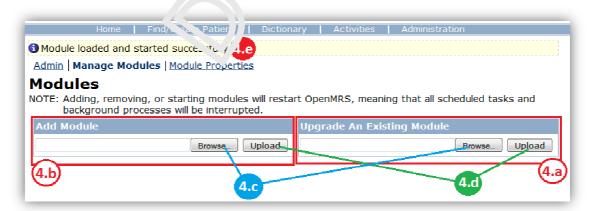


Figure 2: Upload module Prevention of Mother-to-Child Transmission

If the module started successfully, that means it is ready to be used.

#### Features of the module

#### 1. Login page

This is the first page you see on the very first use of OpenMRS, and this is where you have to give your identification (username and password) for the system to recognize you and your privileges. This is a security page, and if you don't have a username and password, it will be impossible for you to get beyond this security page.

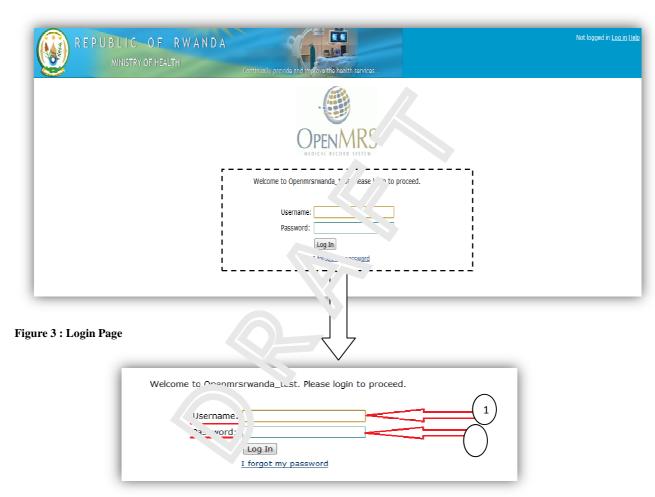


Figure 4: Username and Password

- 1) Where we enter the *username*
- 2) Where we enter the *password*

#### 2. New Tab in the Patient Dashboard

Once the PMTCT module is uploaded, there will be a new tab added to the Patient Dashboard, as shown below:

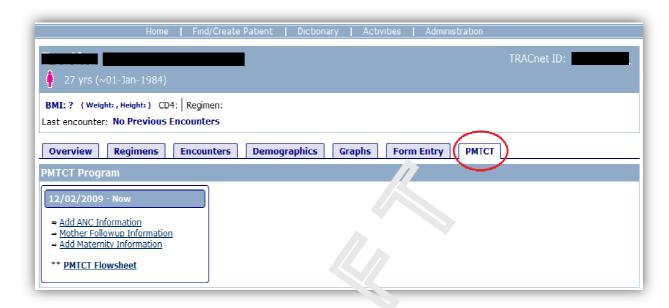


Figure 5: PMTCT Patient Dashobard Tab

#### 3. Statistics on PMTCT clients

On the page Activities, a new link is added which reduct to some statistics on clients enrolled in PMTCT program, as shown below:

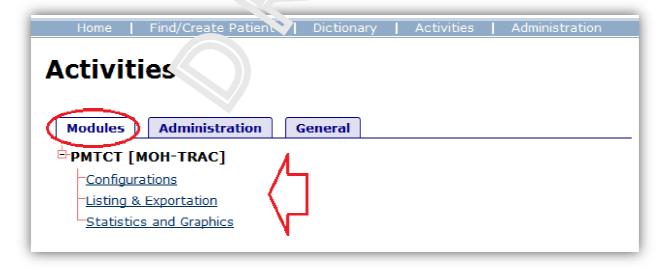


Figure 6: PMTCT links options in the Activities

It offers also the possibility to list and export clients followed in PMTCT.

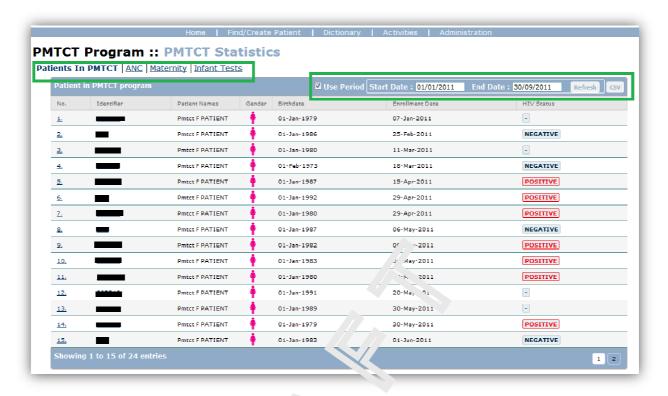
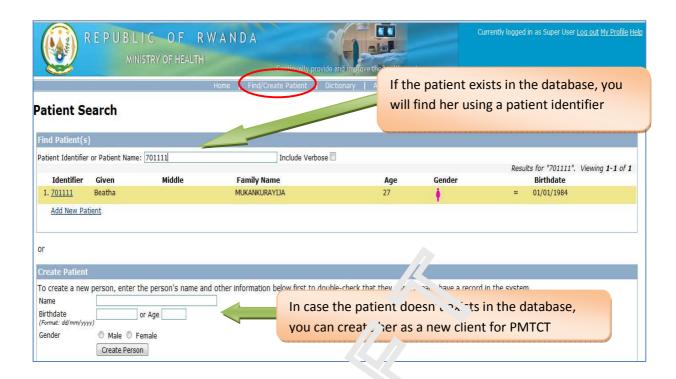


Figure 7: PMTCT Statistics

#### How does it work?

#### 1. Find/Create Pation

The first step is to find the patient in the system (if the patient is already in the system) using a patient identifier, otherwise you will have to attempt at the patient.

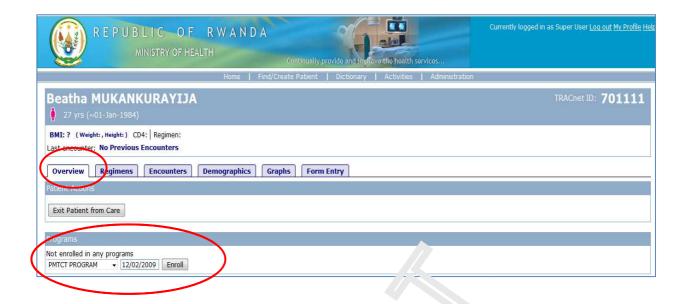


#### 2. PMTCT Program Enrollment

A patient can only have access to PMTCT tab, in the region dashboard, if she has been enrolled in PMTCT program otherwise, you will have to enroll hear the program.

The only patients allowed to be enrol  $\varepsilon$  (in )  $\Gamma$  (if ) ogram are:

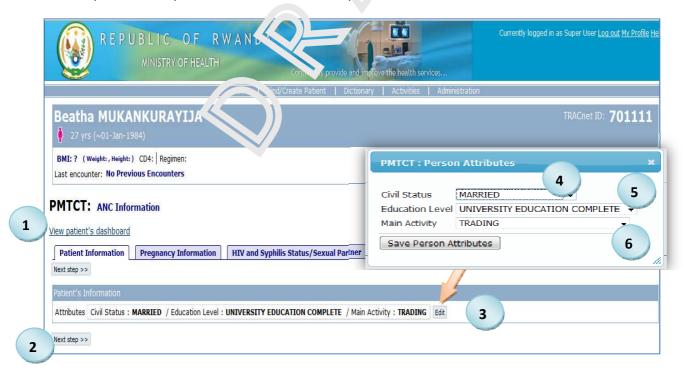
- A pregnant woman exposed to HIV,
- An infant born to a motiver consed to HIV.



# 3. Ante-natal consultation register (Re/str. de Consultation prénatal (CPN))

The ANC register collects the initial information on a pregnant. w. man. In this register, you find all PMTCT clients, theirs names, addresses, education levels, theirs main activities, civil status, test done and their results, information on the pregnancy on their sexual partner.

The first part contains personnel information on the scient.



[1] A link which returns you to the patient's dashboard;

- [2] Takes you to the next step;
- [3] Person attributes are shown and if modifications are necessary, click to the button Edit on the right;
- [4] The Civil Status of the patient;
- [5] The education level of the patient;
- [6] The main activity of the patient;

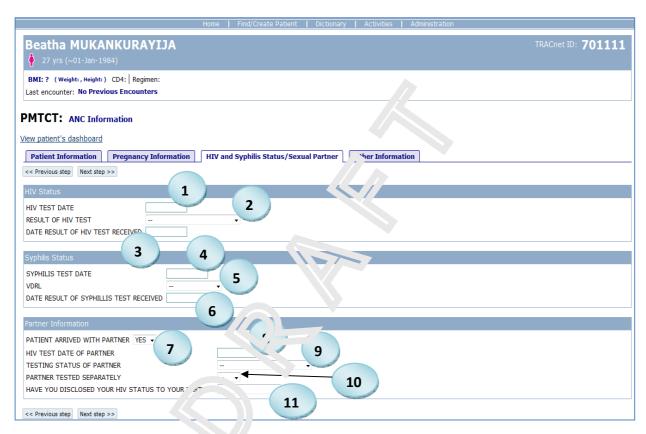
The second part contains the basic information on the pregnancy.



- [1] The date of the encounter;
- [2] A number representing the pregnancy;
- [3] The location where the encounter happened;
- [4] The provider;
- [5] Indicates the date of the last menstrual period remembered by patient;

- [6] The number of times a woman has been pregnant;
- [7] Indicates the number of weeks the mother has been pregnant;
- [8] An estimation of the date in which a mother will give birth to her child.

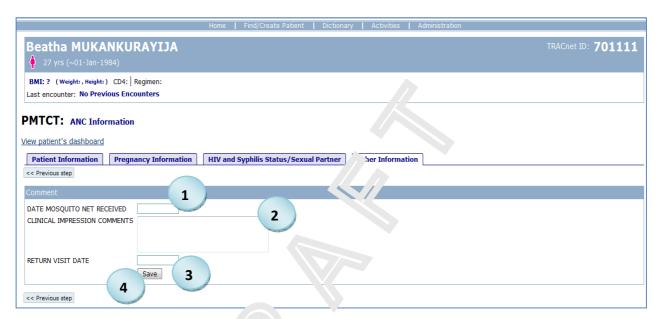
The third part contains HIV and Syphilis status and also the information on the sexual partner.



- [1] Indicates the date of HIV test of the patient;
- [2] Indicates the result of PCR or rapid test for the patient;
- [3] The date on which result of HIV test was received by the patient;
- [4] Indicate the date of the Syphilis test;
- [5] Result of syphilis test;
- [6] The date on which result of Syphilis test was received by the patient;
- [7] Indicates if the patient was accompanied by her sexual partner;
- [8] The date the partner takes the HIV test;

- [9] Indicates the HIV status of the partner;
- [10] Indicates if partners were tested separately or not;
- [11] Indicates if the sexual partner is aware of her HIV status;

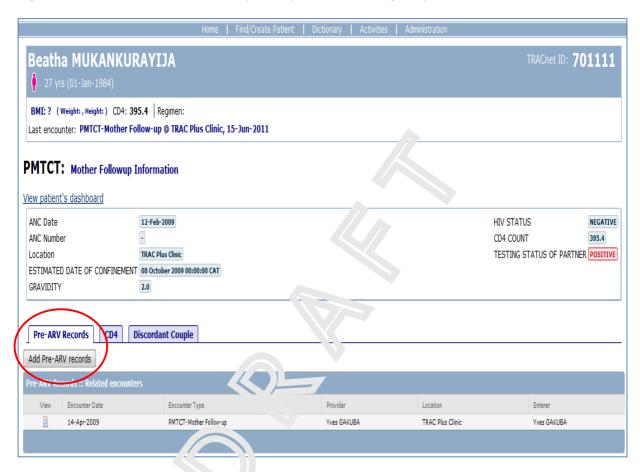
The last part of the ANC contains a resume of the visit and a date for the next visit.



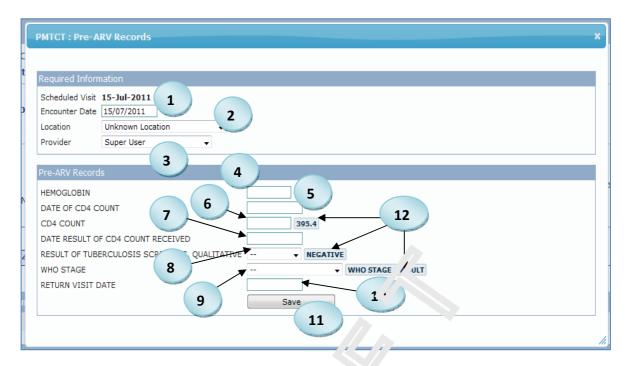
- [1] This indicates the date the patie. \* , 'ce , cu ... ped net (mosquito net);
- [2] Impression of the provider;
- [3] Indicates the date on w' f at the p  $\chi$  ent will return back for a PMTCT visit;
- [4] Button to save the encounte."

#### 4. Registre de suivi des femmes VIH+ et femmes VIH- en couple discordant

This register contains information on the status of the client for HIV+ pregnant women and for HIV-pregnant women in discordant couple. HIV+ pregnant women take Hemoglobin test, CD4 count test and TB test. If the client is already on ARVs, reference of what ARV and when she started taking it are registered. For clients in discordant couple, they take HIV test regularly.

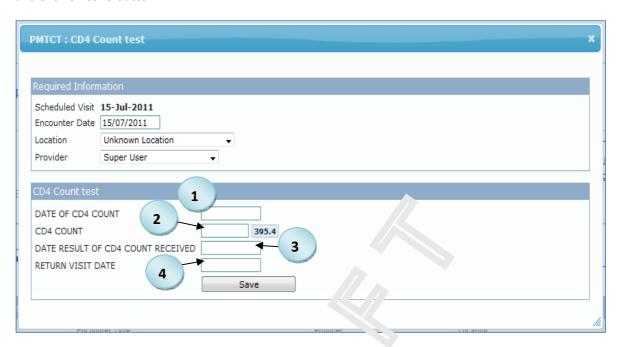


To add Pre-ARV records, click on Audie-ARV records button under Pre-ARV Records tab. A popup window appears.

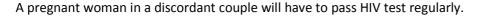


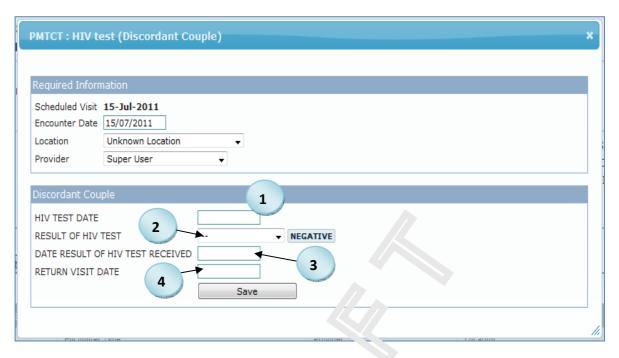
- [1], [2] and [3] represent the date of the encounter, the location of the encounter and the provider of that encounter;
- [4] Indicates the result of Hemoglobin test;
- [5] Indicates the date of the CD4 count test;
- [6] Indicates the result of CD4 count c st;
- [7] Indicates the date when the patient recivit result of CD4 count test;
- [8] Indicates the result of Trusticulosis test;
- [9] Indicates the WHO stage of the pricent;
- [10] Indicates the next visit date;
- [11] Save button;
- [12] Indicates last known result for the patient;

On CD4 count test tab, click on Add a CD4 Count Test button and a popup window appears, fill the form and click on save button.



- [1] Indicates the date of CD4 count test;
- [2] Indicates the result of the test;
- [3] Indicates the date of reception of t'.-...4 count test by the patient;
- [4] Indicates the next visit date;

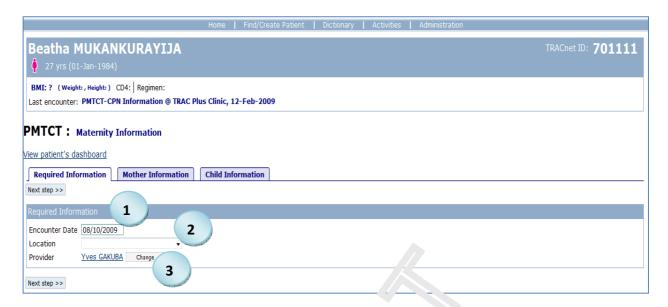




- [1] Indicates the date of HIV test;
- [2] Indicates the result of HIV test;
- [3] Indicates the date of reception of results;
- [4] Indicates the next visit date;

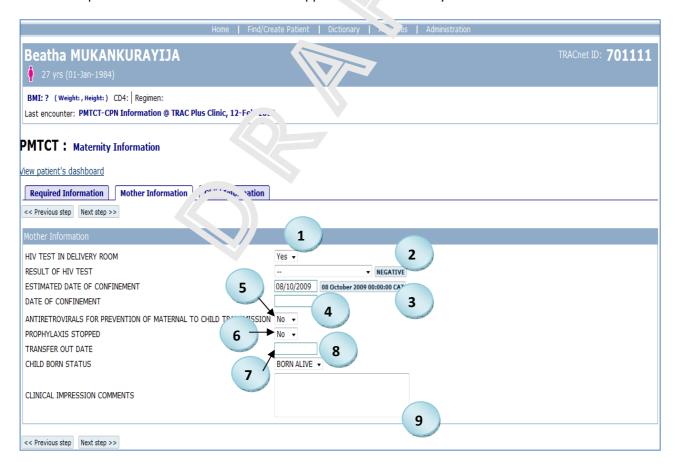
# 5. Maternity regist er (Registre de maternité des femmes VIH + / Femmes VIH- en couple accord / it)

This register contains information o. . .ach client who came to give birth. We found in it information on the pregnancy, if she has been tested in delivery room or not, the date of confinement and information on the new born (infant).



[1], [2] and [3] Indicates the date of the encounter, the location of the encounter and the provider;

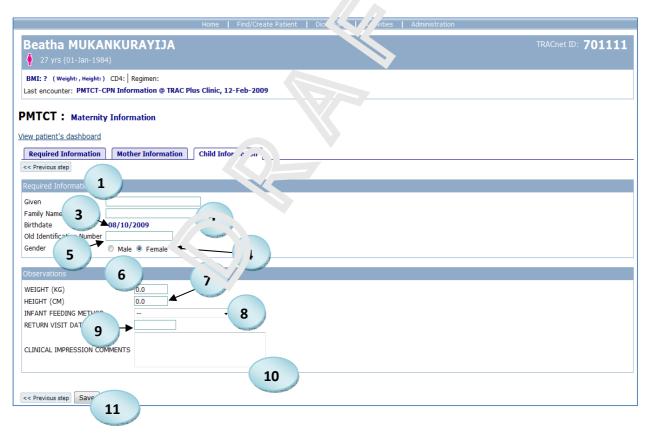
The second part contains information on what happen of a maternity.



[1] Indicates if the patient has been tested for HIV in the delivery room;

- [2] Indicates the result of HIV test in the delivery room;
- [3] Indicates the estimated date of delivery;
- [4] The date of delivery;
- [5] Indicates if the patient takes the antiretrovirals for PMTCT;
- [6] Indicates if the patient stopped prophylaxis;
- [7] The date that the patient was transferred out;
- [8] Indicates the status of the infant at birth;
- [9] Comment of the provider on the mother;

The last part contains information on the new born.



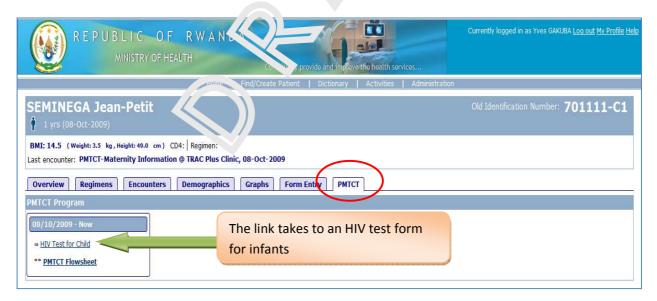
- [1] and [2] Indicates names of the infant;
- [3] The birth date of the infant;

- [4] The gender of the infant;
- [5] Identifier number for the infant;
- [6] The weight of the infant;
- [7] Indicates the height of the infant;
- [8] Indicates the infant feeding method;
- [9] Indicates that the infant is to return on this date;
- [10] The provider comment on the infant;
- [11] Save button;

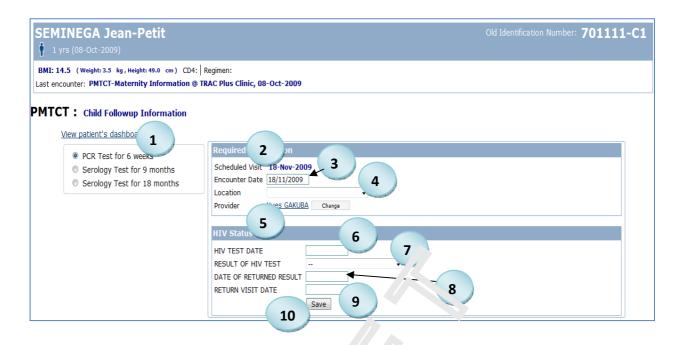
#### 6. Infant follow-up (Registre de suivi de enfants exposés au VIH)

This register contains information on the evolution of the infant professor from the maternity to the age of eighteen (18) months. During this period, the infant conducted to be followed in the PMTCT program, take different tests like PCR and serology for the HIV status. As the age of eighteen (18) months, if the infant is negative for the test of serology (HIV text), he/she will exit from care because he/she doesn't need HIV treatment.

The infant dashboard is presented like this:



The first form is filled at the age of six (6) weeks, when the infant is presented for the PCR test, and will be saved as a PCR at 6 weeks encounter.



- [1] Indicates the test to pass, PCR test at 6 weeks;
- [2] Indicates an appointment date set after de vov.
- [3] Indicates the date when the encounter happen of
- [4] Indicates the location of the encourter
- [5] Indicates the provider;
- [6] The date of HIV Test, in this a PCR test;
- [7] The result of the test;
- [8] The date the patient received i. c result of the test;
- [9] The Patient is to return on this date;
- [10] The save button;

The second form is filled at the age of nine (9) months, when the infant is presented for the Serology test. The form looks like the one shown above, but will be saved as an encounter for the serology at 9 months.

The last form is filled at the age of eighteen (18) months, when the infant is presented for the second Serology test. On this form, the final decision on the status of HIV is registered, and if it is positive, the

infant will be enrolled in the HIV Program. The PMTCT program will be completed after this encounter. The visit will be saved as a Serology at 18 months encounter.



#### **Note**

The PMTCT management module offers a nice tool to manage and follow pregnant wowen living with HIV or exposed to HIV so to give a chance to the new born a chance to not get infected to HIV.

It gives also the possibility to do different analysis  $\sim 2$ , on data entered directly from the module or export in different format of spreadsheet which can  $\sim 2$  read and analysed by other tools like excel.

The module gives also a better overvision of the program with different graphical statistics.