



# **Pharmacy Information System (PhIS) and Clinic Pharmacy System (CPS)**

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## **Full Based User Manual Medication Therapy Adherence Clinic (MTAC)**

<b>Version</b>	<b>: 6<sup>th</sup> Edition</b>
<b>Document ID</b>	<b>: FB_U. MANUAL_MTAC</b>



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Application reference: PhIS & CPS v1.6.1



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## 1.0 Introduction

### 1.1 Overview of PhIS

Pharmacy Information System or better known as PhIS, is a complete and comprehensive system that integrates pharmacy related services geared towards pharmacy excellence. PhIS implementation would transform most of current manual process to electronic system to benefit facility end user in the health care sector.

There are 12 modules to assist services delivery by the health care sector which comprises of:

1. Order Management
2. Inpatient Pharmacy
3. Outpatient Pharmacy
4. Medication Counselling
5. Ward Pharmacy
6. Pharmacy Inventory
7. Manufacturing of Cytotoxic Drug Reconstitution, Parenteral Nutrition, IV Admixture & Eye Drop, Radiopharmaceuticals and Extemporaneous
8. Adverse Drug Reaction & Drug Allergic (ADR & DAC)
9. Clinical Pharmacokinetics Services (TDM)
10. Drug Information & Consumer Education (DICE)
11. Medication Therapy Adherence Clinic (MTAC)
12. Data Mining (PhARM)

### 1.2 Purpose and Objectives

This user manual outlines the Medication Therapy Adherence Clinic (MTAC) sub-module and its key features and functionalities. The primary objective is to guide user through the process of completing PhIS application process.

User will understand the following activities in details:

- MTAC Order
- MTAC Reporting

### 1.3 Organised Sections

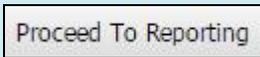
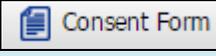
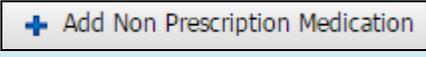
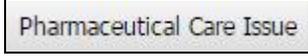
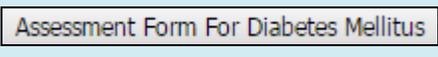
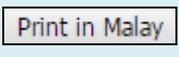
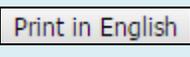
These are the sections within this document:

- Section 1 : Introduction
- Section 2 : Application Standard Features
- Section 3 : MTAC
- Section 4 : Acronyms
- Section 5 : Links to clinical modules

## 2.0 Application Standard Features

### 2.1 PhIS Legend

Standard Legend			
<input type="text"/>	Blank Field	<input type="text" value="v"/>	Drop Down Box
	Reset Login	<input type="button" value="LOGIN"/>	Login to PhIS
	Expand Menu		Collapse Menu
<input type="button" value="Home"/>	Display Home Tab		Expand Module
	Collapse Module	<input type="button" value="Logout"/>	Logout from PhIS
	Close All Tabs		Refresh
	Search First Page/ Previous Page		Search Next Page/Last Page
	Search Up/Down Button	<input type="text" value="F02FBW-0003984"/>	Hyperlink
	Save		Show Help
	Search Icon		Add/Create New Record
	Calendar Icon	<input type="button" value="Search"/>	Search Record
	Close Window	<input type="button" value="Add/Update"/>	Add/Update Button
<input type="text" value="HPSF00088304"/>	Auto generate an information by the system	<input type="text" value="SPUB5656569"/>	Auto generate record no by the system
*	Mandatory Field	<input type="button" value="Cancel"/>	Cancel Button
<input type="button" value="Yes"/>	Yes Button	<input type="button" value="No"/>	No Button
<input type="button" value="OK"/>	OK Button		Edit Record
	Print	<input type="button" value="Export to Excel"/>	Export report from PDF to Excel
<input type="checkbox"/>	Check Box	<input type="radio"/>	Radio Button
	Cancel		Delete Record

<b>MTAC Module Legend</b>			
	Lab Parameter Button		Proceed To Reporting Button
	Search History Button	<a href="#">Audit Trail</a>	Audit Trail Hyperlink
	Consent Form Button		CP1 Button
	CP4 Button		Add Prescription Medication Button
<a href="#">Calculate Score</a>	Calculate Score Hyperlink		Add Non Prescription Medication Button
	Save & Continue Button		Pharmaceutical Care Issue Button
	Malay Language Button		Assessment Form for Diabetes Mellitus Button
	Medication Order Button		Confirm Button
	Print In Malay Button		Print In English Button

**Note**

To learn more about Login Information, kindly click [Login Information](#) module for descriptive steps.

## 2.2 Latest Enhancement and Updates

Latest Functions	Page
Add MTAC History link in all dispensing screen (patient banner): <ul style="list-style-type: none"> <li>a. Acknowledgement (OP)</li> <li>b. Screening and Verification (OPIP)</li> <li>c. Preparation (OPIP)</li> <li>d. Dispensing (OPIP)</li> <li>e. VAS (OP)</li> <li>f. Single Stage (OP)</li> <li>g. Methadone Dispensing</li> </ul>	Related screen
CP1 Default to "No history of taking Non-Prescription Medication" if no data in table (in printed report).	<a href="#">34</a>
PCI Screen <ul style="list-style-type: none"> <li>a. Add column for intervention remarks in PCI screen and rename other details to order details.</li> </ul>	<a href="#">46</a>
<ul style="list-style-type: none"> <li>b. Add intervention date in printed report for prescribed Medication issue.</li> </ul>	<a href="#">34</a>
<ul style="list-style-type: none"> <li>c. Add "Prescriber Review" Column</li> </ul>	<a href="#">34</a>
<ul style="list-style-type: none"> <li>d. Show "Current Medication" in the report printing</li> </ul>	<a href="#">34</a>
MTAC Reporting Screen <ul style="list-style-type: none"> <li>a. To remove "Recommended Lab Test field" and rearrange the Pharmacist Note and Remarks field</li> <li>b. To rename 'Compliance score' to "Adherence score"</li> <li>c. Replace Medication Order button, put at the bottom screen.</li> </ul>	<a href="#">30</a>
<ul style="list-style-type: none"> <li>d. Display previous adherence score record from previous visit (if any – max 5 newest record)</li> </ul>	<a href="#">33</a>

## 3.0 MTAC

### Overview

The MTAC module emphasis on medication management to improve quality and safety include. Implementing safe, organized, and efficient drug-dispensing systems is essential for controlling costs and assuring that the medical prescription is safely followed as requested and within the relevant deadline. An appropriate dispensing system and cost-effectiveness of patient care. MTAC is operated to drug therapy monitoring and patient's education in improving their ability to successfully manage disease condition and reducing medication error.

### User Group

This module is intended for registration staff and pharmacist (subject to the user assigned by the facility)

### Functional Diagram

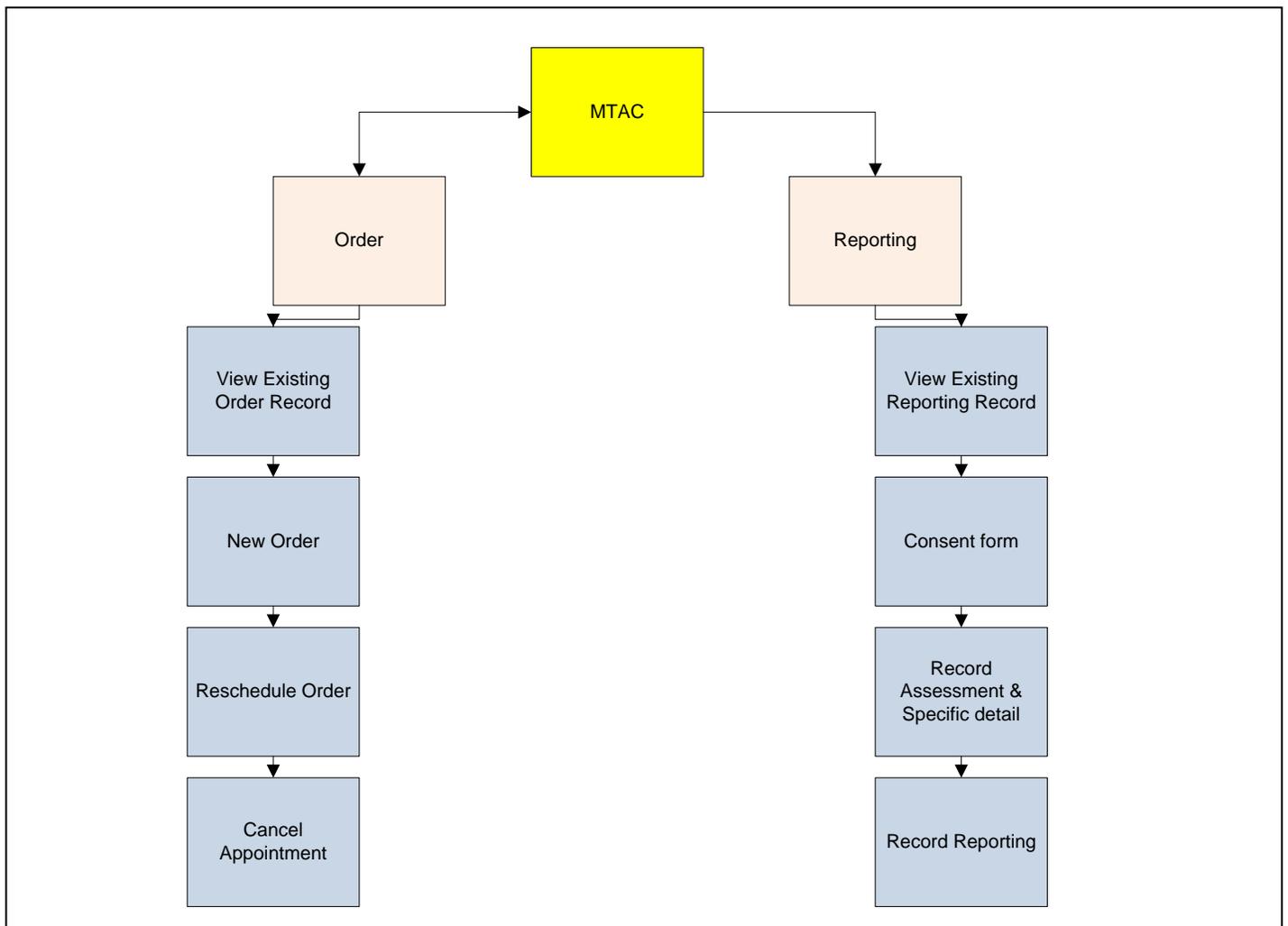


Figure 3.0-1

## Functional Description

MTAC comprises of two (2) main functions:

### Order

MTAC Order is to record the type of MTAC for counselling and to schedule appointment dates.

### Reporting

Reporting is used to record assessment, specific details and report of counselling

There are ten (10) types of MTAC with No Specific Details

1. Cardiac Rehab Program
2. Chronic Pain
3. Gastrohepatology
4. Hemophilia
5. Hepatitis
6. Neurology
7. Osteoporosis
8. Psoriasis
9. Psychiatry
10. Rheumatology

There are ten (10) types of MTAC with Specific Details

1. Chronic Kidney Disease
2. Diabetes Mellitus
3. Dialysis
4. Geriatric
5. Heart Failure
6. Methadone
7. Renal Transplant
8. Respiratory
9. Retro Viral Disease
10. Warfarin

### 3.1 MTAC Order

MTAC order will be ordered by prescriber from order management. Pharmacists are also able to create a new order at the MTAC Order screen

#### 3.1.1 View Existing MTAC Order

MTAC Order screen allow users to search and view existing patients' MTAC order records.

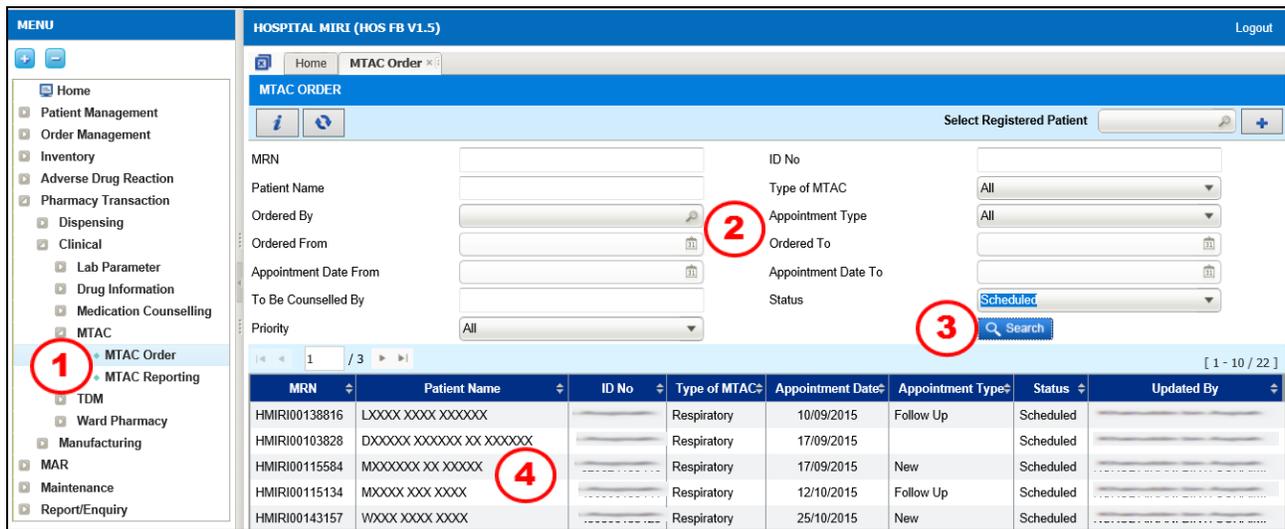


Figure 3.1.1-1 MTAC Order Listing Page

#### STEP 1

Click on 'Pharmacy Transaction' menu followed by 'Clinical' then 'MTAC' and 'MTAC Order' sub menu

#### STEP 2

Search existing patient record by: -

Field	Description	Remark
MRN	Patient Medical Record Number	Search option: Type the MRN either full or partial: Example: HPSF00001234 or "1234"
Patient Name	Patient Name	Allow to search by patient full name or partial
Ordered by	Ordered by	Able to filter and search by ordered by
Ordered from	Ordered from	Able to filter and search by ordered from
Appointment Date	Appointment Date	Able to filter and search by appointment date
To Be Counselling by	To Be Counselling by	Able to filter and search by to be counselled by
ID No	Identification Number	Allow to search by full or partial ID Number
Ordered to	Ordered to	Able to filter and search by ordered to
Appointment Type	- All - Follow Up - Follow Up Reschedule - New	Able to filter and search by appointment type

	- New Reschedule	
Priority	- All - Urgent - Routine	Able to filter and search by priority
Type of MTAC	- All - Cardiac Rehab Program - Chronic Kidney Disease - Chronic Pain - Diabetes Mellitus - Dialysis - Gastrohepatology - Geriatric - Hemophilia - Heart Failure - Hepatitis - Methadone - Neurology - Osteoporosis - Psoriasis - Psychiatry - Renal Transplant - Respiratory - Retro Viral Disease - Rheumatology - Warfarin	Able to filter and search by type of MTAC order
Status	- All - Ordered - Scheduled - Cancelled - In Progress - Completed	Able to filter and search by status

**Table 3.1.1-1**

**STEP 3**

Click on the  button to search the patient

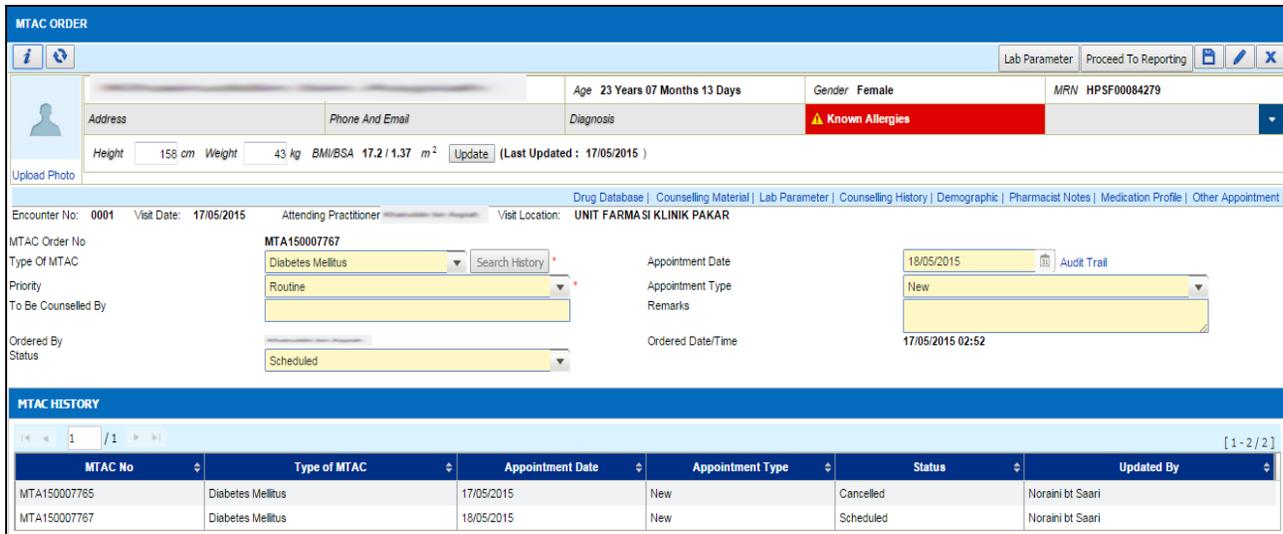
**Note**

*Search result of current order patient list will be displayed:*

- MRN
- Patient Name
- ID No
- Type of MTAC
- Appointment Date
- Appointment Type
- Status
- Updated By

## STEP 4

Double click on the selected patient's name and Order record will be displayed



MTAC No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
MTA150007765	Diabetes Mellitus	17/05/2015	New	Cancelled	Noraini bt Saari
MTA150007767	Diabetes Mellitus	18/05/2015	New	Scheduled	Noraini bt Saari

Figure 3.1.1-2 MTAC Order

### Note

- Once click on the selected patient name, the summary of patient information will be displayed in the patient banner. The patient banner will be displayed at the specific screen which is required patient information. Below is the list of patient information:
  - Patient Name
  - Patient Address
  - Patient IC No
  - Patient Phone and Email
  - Patient Age
  - Patient Diagnosis
  - Patient Gender
  - Patient Allergy
  - Patient MRN
- Below options are provided for user to view the additional patient's information. Click on the hyperlink as below:
  - Counselling Material**
    - User able to download and use medication counselling material during the counselling session
  - Lab Parameter**
    - Patient's laboratory test results and standard parameter results for laboratory test
  - Counselling History**
    - Patient's previous medication counselling history records
  - MTAC History**
    - Patient's previous MTAC History records
  - Demographic**
    - Patient's demographic details
  - Pharmacist Notes**
    - Pharmacist notes according to type of service such as CP1, CP2, MTAC, TDM and etc

g) **Medication Profile**

- Patient's current medication and previous medication history records

h) **Other Appointments**

- Provides information if there are any other appointments recorded for the patient

- MTAC Order Details will be displayed as below:

- MTAC Order No – Auto generated by system
- Type of MTAC
- Priority
- To Be Counselling By
- Ordered By
- Status - Status of the order
- Appointment Date
- Appointment Type
- Remarks
- Ordered Date/Time

- Search result of MTAC History order list of the patient will be displayed:

- MTAC No
- Type of MTAC
- Appointment Date
- Appointment Type
- Status
- Updated By

- User able to edit and schedule MTAC Order. Status will be defaulted as Scheduled

### 3.1.2 Create New MTAC Order

This function allows user to create a new order for MTAC patients.

MRN	Patient Name	ID No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
HPSF00019585			Warfarin		Follow Up	Ordered	
HPSF00011303			Warfarin			Ordered	
HPSF00013175			Warfarin			Ordered	
HPSF00014543			Warfarin			Ordered	
HPSF00014292			Warfarin			Ordered	
HPSF00016476			Warfarin			Ordered	
HPSF00040312			Diabetes Mellitus		Follow Up	Ordered	
HPSF00007637			Warfarin			Ordered	
HPSF00020342			Warfarin		Follow Up	Ordered	
HPSF00008470			Warfarin			Ordered	

Figure 3.1.2-1 MTAC Order Listing Page

**STEP 1**

Click on 'Pharmacy Transaction' menu followed by 'Clinical' then 'MTAC' and 'MTAC Order' sub menu

**STEP 2**

Click on the button to search for registered patient at the *Select Registered Patient*

Patient MRN	Patient Name	ID No	Type of MTAC	Appointment
2001011				
HPSF00000001				
HPSF00000003				
HPSF00000004				
HPSF00000005				
HPSF00000006				
HPSF00000007				
HPSF00000008				
HPSF00000009				
HPSF00000010				

Figure 3.1.2-2 Patient Search

**Note**

- Search MRN screen will be displayed as per Figure Patient search screen will be displayed as shown in Figure 3.1.2-2
- On this screen, user will be able to search existing patient record by:
  - a) MRN
  - b) Patient Name
  - c) Ordered By
  - d) Ordered From
  - e) Appointment Date
  - f) To Be Counseled By
  - g) ID No
  - h) Type of MTAC
  - i) Appointment Type
  - j) Ordered To
  - k) Priority
  - l) Status
- User able to view the list of MTAC order at the listing page as per Figure 3.1.2-2
- If need to re-schedule the order again, click on the selected patient name and continue to proceed re-schedule process.

**STEP 3**

Search existing patient record as follow: -

Field	Description	Remark
Patient MRN	Patient Medical Record Number	Search option: Type the MRN either in full or partially: <i>Example: HPSF00001234 or "1234"</i>
Patient Name	Patient's name	Allow to search by full or partial patient name
ID No	Identification Number	Allow to search by full or partial ID Number

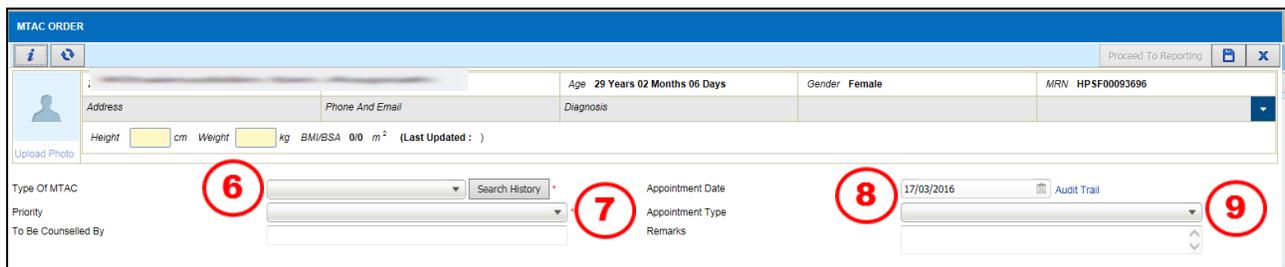
**Table 3.1.2-1**

**STEP 4**

Click on the  button to search for the patient and system will display all the registered patients

**STEP 5**

Click on  button to add a new MTAC order record as Figure 3.1.2-3



The screenshot shows the 'MTAC ORDER' form with the following fields and callouts:

- 6**: Type Of MTAC dropdown menu.
- 7**: Priority dropdown menu.
- 8**: Appointment Date field.
- 9**: Appointment Type dropdown menu.

Other visible fields include: Address, Phone And Email, Diagnosis, MRN (HPSF00093696), Height (cm), Weight (kg), BMI/BSA (m<sup>2</sup>), and To Be Counseled By.

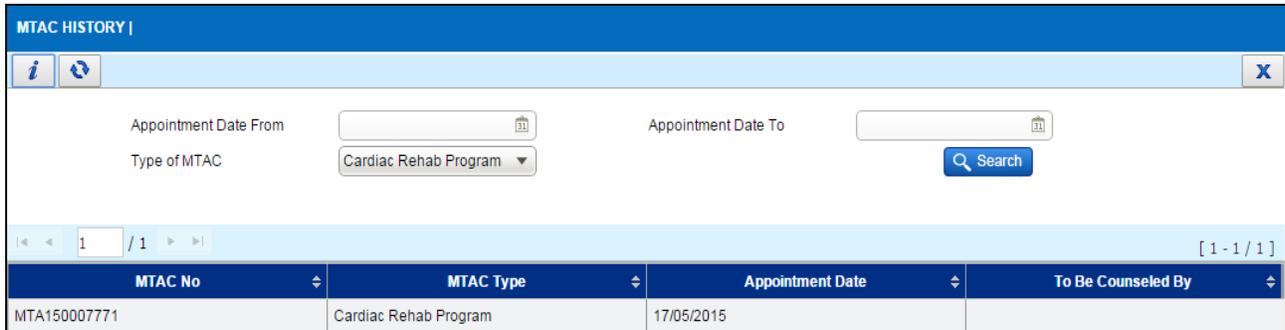
**Figure 3.1.2-3 MTAC Order**

**STEP 6**

Select **Type Of MTAC** from the drop down box

**Note**

- **Type of MTAC** listed depends on the facility's MTAC availability.
- Select **Type of MTAC** and click on the  button. System will display previous MTAC History details (according to the selected MTAC type) in the pop up window as shown in Figure 3.1.2-4.
- MTAC History will also be listed at the bottom of the 'MTAC Order' screen.



MTAC No	MTAC Type	Appointment Date	To Be Counseled By
MTA150007771	Cardiac Rehab Program	17/05/2015	

Figure 3.1.2-4 MTAC History

**STEP 7**

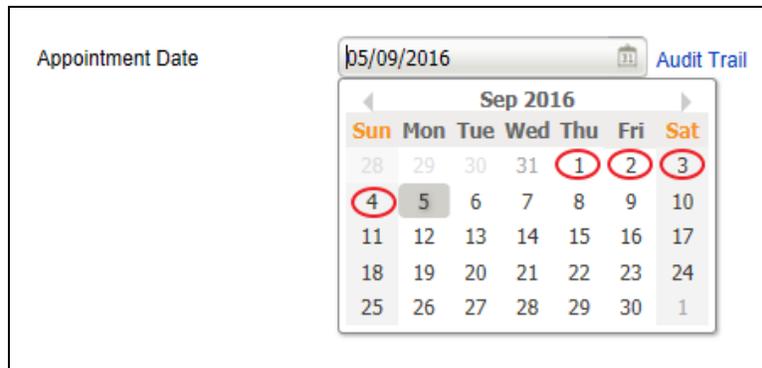
Select **Priority** as listed from the drop down box

- Routine
- Urgent

**STEP 8**

Click on the  button to select **Appointment Date**

**Note**



Appointment Date: 05/09/2016 [Audit Trail](#)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1

- Click on the [Audit Trail](#) hyperlink to view a list of changes/amendment on the same MTAC report if there is any.
- User is allow to select the date from 5 days back. For example today is **5/9/2016**, user can select **31 Aug, 1, 2, 3 and 4 Sept**.

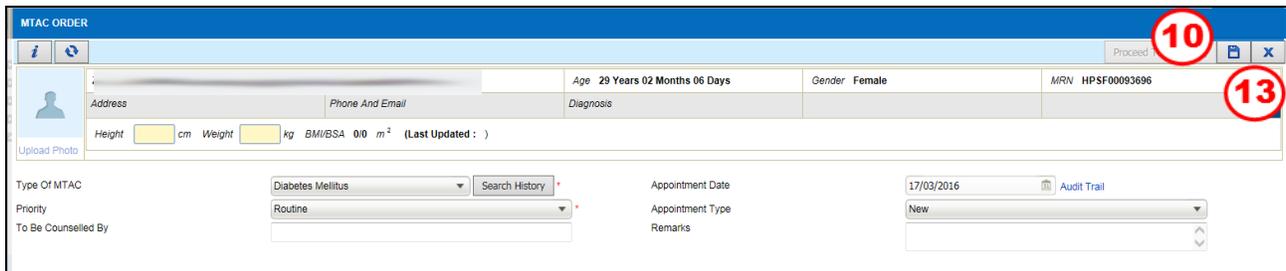
**STEP 9**

Select **Appointment Type** as listed from the drop down box

- New
- New Reschedule
- Follow Up
- Follow Up Reschedule

**Note**

- User will be able to enter **To Be Counseled By** person name and **Remarks** if required.
- The **Status** of the order will be changed to 'Scheduled' if the **Appointment Date** is selected.
- Additional information will be displayed for the **Type of MTAC** 'Warfarin'.
- User can click on the  button to save the MTAC Order and system will proceed to 'MTAC Reporting' window.
- Assessment section is automatically copied from the previous/latest visit.
- 'Specific details' will be automatically copied from the latest record only for the same **Type of MTAC**.



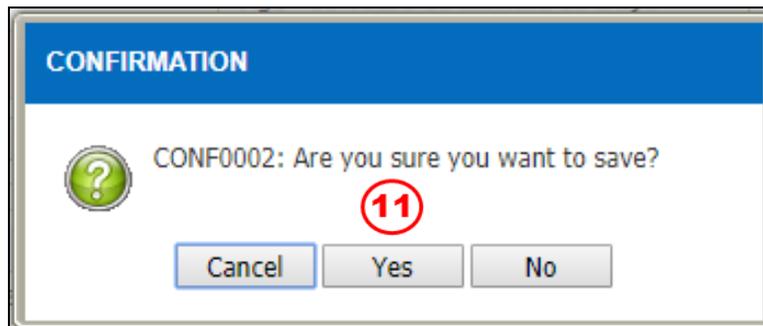
**Figure 3.1.2-5 MTAC Order**

**STEP 10**

Click on the  button to save the record

**STEP 11**

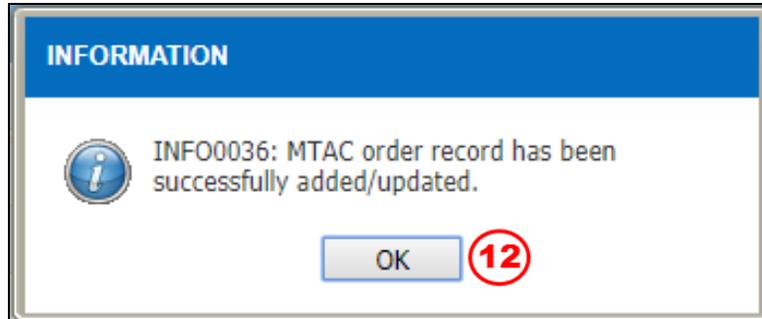
Click on the  button to confirm saving of order



**Figure 3.1.2-6 Confirmation Alert Message**

**STEP 12**

Click on the  button to confirm record



**Figure 3.1.2-7 Information Alert Message**

**STEP 13**

Click on the  button to close record as shown in Figure 3.1.2-5

### 3.1.3 Reschedule MTAC Order

This function is used to reschedule MTAC appointment date

Figure 3.1.3-1 MTAC Order

**Note**

Repeat **STEP 1** to **4** as in section [3.1.1 View Existing Order](#) before performing reschedule MTAC order for patient.

**STEP 1**

Click on the button to edit MTAC order

**STEP 2**

Click on the button to select a different **Appointment Date**

**Note**

- User have to change the **Appointment Type** to **New Reschedule** or **Follow Up Reschedule** after selecting the new **Appointment Date**.
- User will be able to edit **Appointment Date** at 'MTAC Order' screen only before the MTAC Reporting is saved.
- Click on the [Audit Trail](#) hyperlink to view a list of changes/amendment on the same MTAC report if there is any.

MTAC No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
MTA150007765	Diabetes Mellitus	17/05/2015	New	Cancelled	Noraini bt Saari
MTA150007767	Diabetes Mellitus	18/05/2015	New	Scheduled	Noraini bt Saari

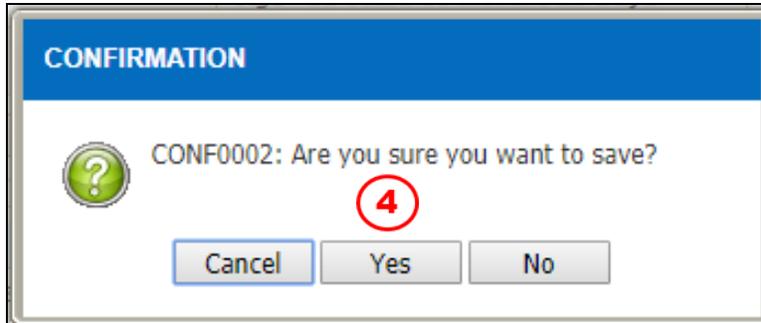
Figure 3.1.3-2 MTAC Order

**STEP 3**

Click on the  button to save the record

**STEP 4**

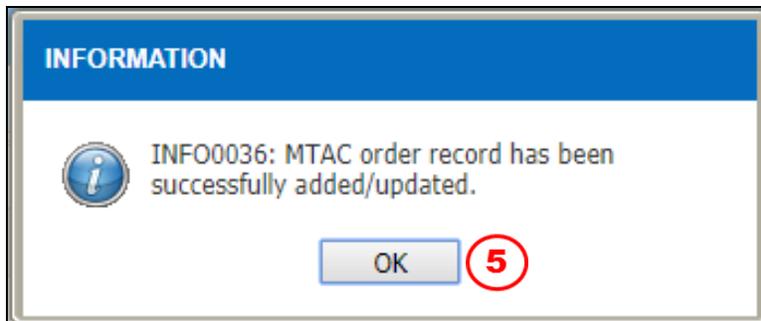
Click on the  button to confirm saving of order



**Figure 3.1.3-3 Confirmation alert message**

**STEP 5**

Click on the  button to confirm record



**Figure 3.1.3-4 Information alert message**

**STEP 6**

Click on the  button to close record as shown in Figure 3.1.3-2

### 3.1.4 Cancel MTAC Order

This function is used to cancel an existing MTAC order

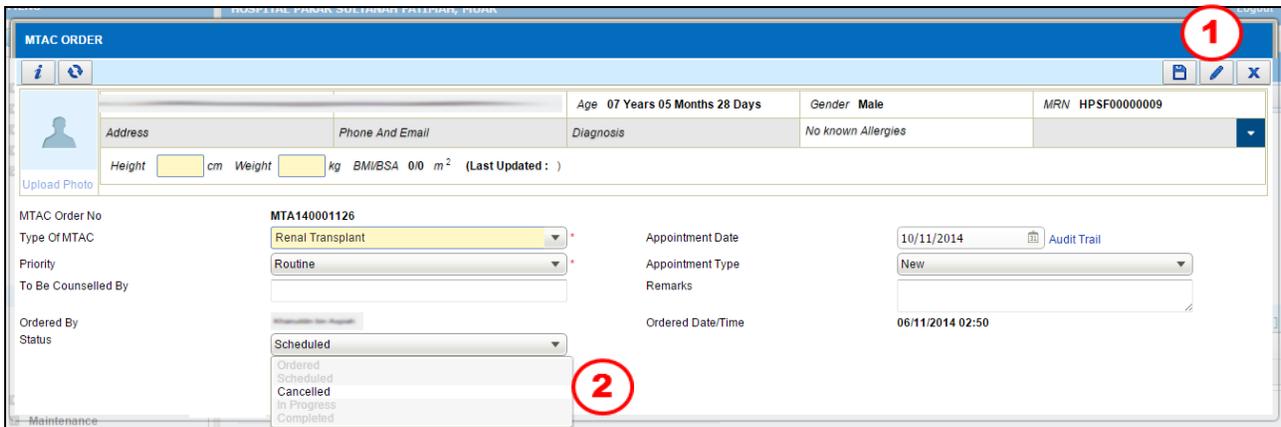


Figure 3.1.4-1 MTAC Order

**Note**

Repeat **STEP 1** to **4** as in section [3.1.1 View Existing Order](#) to cancel an existing MTAC order for patient.

**STEP 1**

Click on the  button to edit MTAC order

**STEP 2**

Select **Status** as 'Cancelled' from the drop down box

**Note**

- User will be able to cancel order at 'MTAC order' screen only before the MTAC Reporting is saved.
- Only order with **Status** 'Ordered' and 'Scheduled' can be cancelled.

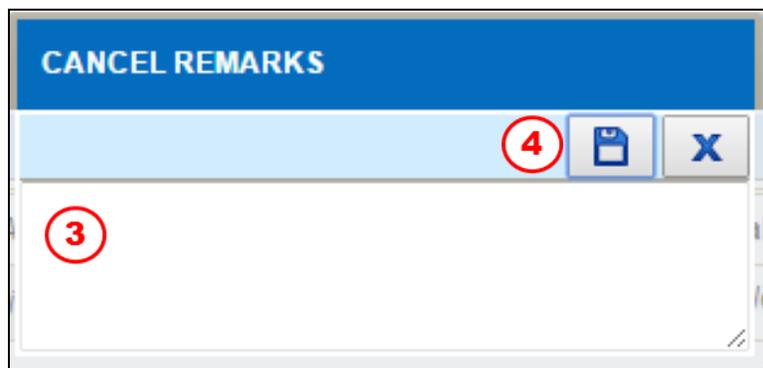


Figure 3.1.4-2 Cancel Remarks

**STEP 3**

Enter **Cancel Remarks** and save the record

**STEP 4**

Click on the  button to save record

### STEP 5

Click on the  button to confirm saving of order

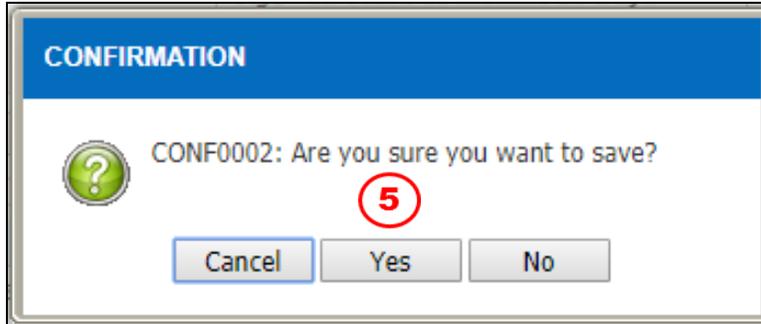


Figure 3.1.4-3 Confirmation Alert Message

### STEP 6

Click on the  button to confirm record

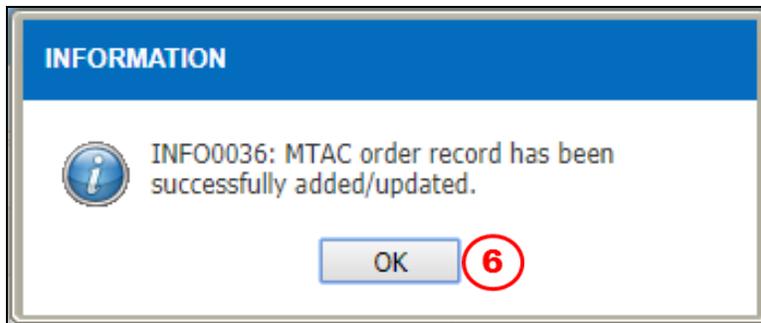


Figure 3.1.4-4 Information Alert Message

### 3.2 MTAC Reporting

This function is used to search and view existing MTAC reporting or record new MTAC reporting

#### 3.2.1 Create New MTAC Reporting With No Specific Details

This function allow user to record new MTAC reporting with no specific details for MTAC patient

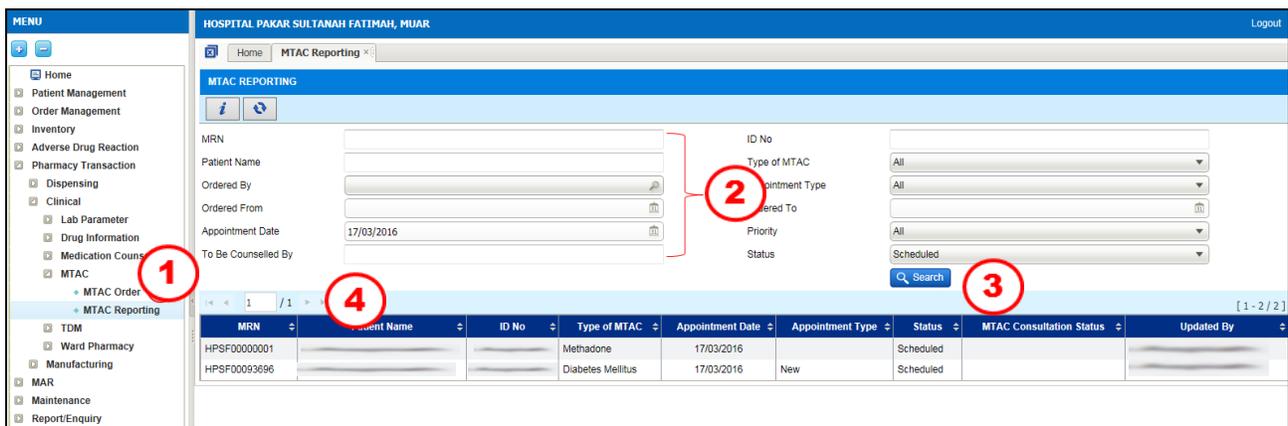


Figure 3.2.1-1 MTAC Reporting Listing Page

#### STEP 1

Click on 'Pharmacy Transaction' menu followed by 'Clinical' then 'MTAC' and 'MTAC Reporting' sub menu

#### STEP 2

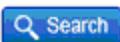
Search for existing patient record by below criteria:

Field	Description	Remark
MRN	Patient Medical Record Number	Search option: • Type the MRN either full or partial: Example: HPSF00001234 or "1234"
Patient Name	Patient Name	Allow to search by patient full name or partial
Ordered by	Ordered by	Able to filter and search by ordered by
Ordered from	Ordered from	Able to filter and search by ordered from
Appointment Date	Appointment Date	Able to filter and search by appointment date
To Be Counseled by	To Be Counseled by	Able to filter and search by to be counseled by

ID No	Identification Number	Allow to search by full or partial ID Number
Type of MTAC	<ul style="list-style-type: none"> <li>- All</li> <li>- Cardiac Rehab Program</li> <li>- Chronic Kidney Disease</li> <li>- Chronic Pain</li> <li>- Diabetes Mellitus</li> <li>- Dialysis</li> <li>- Gastrohepatology</li> <li>- Geriatric</li> <li>- Hemophilia</li> <li>- Heart Failure</li> <li>- Hepatitis</li> <li>- Methadone</li> <li>- Neurology</li> <li>- Osteoporosis</li> <li>- Psoriasis</li> <li>- Psychiatry</li> <li>- Renal Transplant</li> <li>- Respiratory</li> <li>- Retro Viral Disease</li> <li>- Rheumatology</li> <li>- Warfarin</li> </ul>	Able to filter and search by type of MTAC order
Appointment Type	<ul style="list-style-type: none"> <li>- All</li> <li>- New</li> <li>- New Reschedule</li> <li>- Follow Up</li> <li>- Follow Up Reschedule</li> </ul>	Able to filter and search by appointment type
Ordered to	Ordered to	Able to filter and search by ordered to
Priority	<ul style="list-style-type: none"> <li>- All</li> <li>- Urgent</li> <li>- Routine</li> </ul>	Able to filter and search by priority
Status	<ul style="list-style-type: none"> <li>- All</li> <li>- Scheduled</li> <li>- In Progress</li> <li>- Completed</li> </ul>	Able to filter and search by status

**Table 3.2.1-1**

**STEP 3**

Click on the  button to search the patient

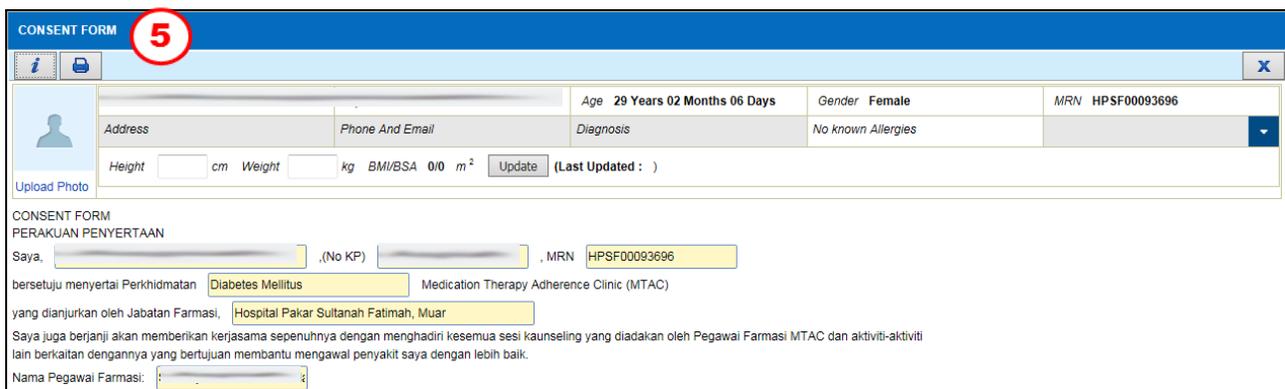
**Note**

Search results of current order patient list will display:

- MRN
- ID No
- Patient Name
- Type of MTAC
- Appointment Date
- Appointment Type
- Status
- MTAC Consultation Status
- Updated By

**STEP 4**

Double click on the selected patient's record and the 'Consent Form' window will be displayed as shown in Figure 3.2.1-2



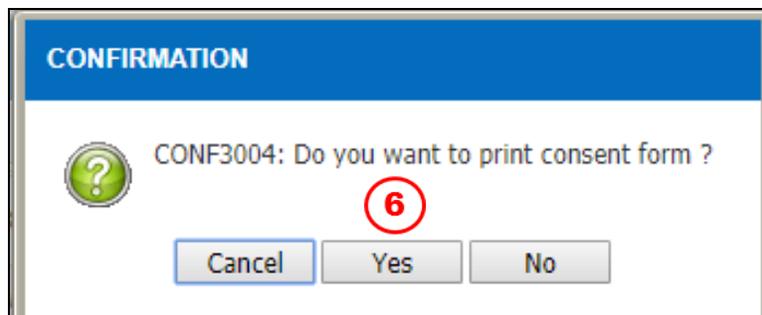
**Figure 3.2.1-2 Consent Form**

**STEP 5**

Click on the  button to print the consent form

**STEP 6**

Click on the  to confirm printing Consent form and new screen will be displayed for user to print Consent Form as per Figure 3.2.1-4



**Figure 3.2.1-3 Print Report Alert Message**



MEDICATION THERAPY ADHERENCE CLINIC (MTAC)  
Jabatan Farmasi, Hospital Pakar Sultanah Fatimah, Muar

### PERAKUAN PENYERTAAN

S  A, (No KP  MRN HPSF00186863 bersetuju menyertai Perkhidmatan DIABETES MELLITUS Medication Therapy Adherence Clinic (MTAC) oleh Jabatan Farmasi, HOSPITAL PAKAR SULTANAH FATIMAH, MUAR. Saya juga berjanji akan memberikan kerjasama sepenuhnya dengan menghadiri kesemua sesi kaunseling yang diadakan oleh Pegawai Farmasi MTAC dan aktiviti-aktiviti lain berkaitan dengannya yang bertujuan membantu mengawal penyakit saya dengan lebih baik.

.....  
Tandatangan

Nama pesakit: 

Tarikh: 06/09/2017

.....  
Tandatangan

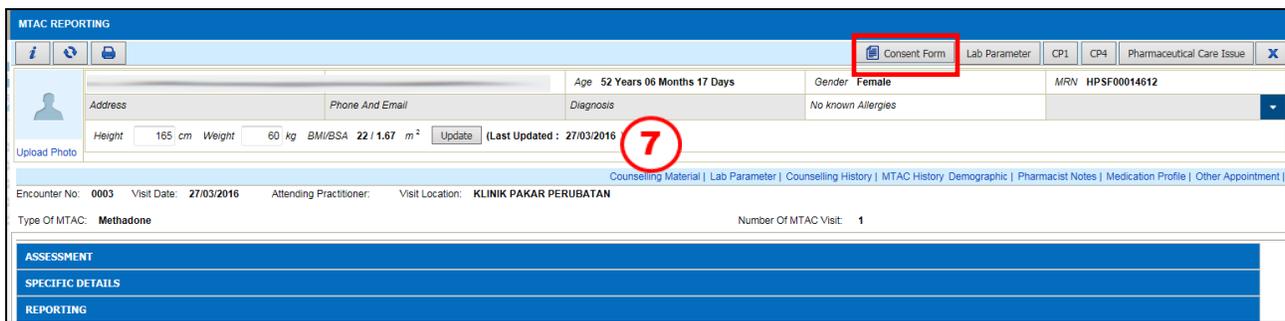
Nama Peg. Farmasi: 

Tarikh: 06/09/2017

Figure 3.2.1-4 Print Consent Form

**Note**

- Consent form details will automatically display:
  - a) Patient name
  - b) ID No
  - c) MRN
  - d) Type of MTAC
  - e) Facility Name
- Consent form is mandatory to be printed for new visit of MTAC appointment only. For subsequent visits, user can print the consent form by click on the  button at the 'MTAC Reporting' screen



**Figure 3.2.1-5 MTAC Reporting Screen**

**Note**

- Type of MTAC
- No of MTAC Visit
- Assessment Tab
- Reporting Tab

**Assessment**

- Click on the Assessment tab
- There are 4 sections under the Assessment tab as below:
  - a) Social History
  - b) Family History
  - c) Medical History
  - d) Past Medication History

## Social History

### STEP 7

Enter **Estimated Dry Body Weight in Kg**

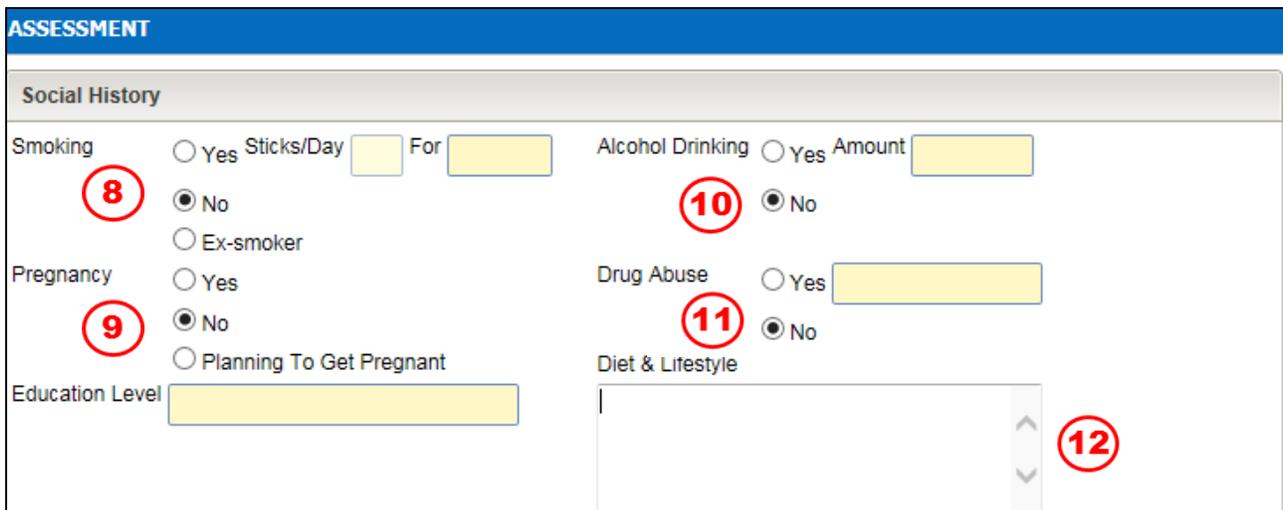
### STEP 8

Select on **Smoking** radio button

- Yes
- No
- Ex-smoker

### Note

**Sticks/Day** and **for** fields will be enabled only if user select Yes and Ex-smoker radio button



The screenshot shows a web form titled "ASSESSMENT" with a sub-section "Social History". The form includes the following elements:

- Smoking:** Radio buttons for "Yes", "No", and "Ex-smoker". Input fields for "Sticks/Day" and "For". A red circle with the number "8" is next to the "No" radio button.
- Alcohol Drinking:** Radio buttons for "Yes" and "No". Input field for "Amount". A red circle with the number "10" is next to the "No" radio button.
- Pregnancy:** Radio buttons for "Yes", "No", and "Planning To Get Pregnant". A red circle with the number "9" is next to the "No" radio button.
- Drug Abuse:** Radio buttons for "Yes" and "No". Input field. A red circle with the number "11" is next to the "No" radio button.
- Education Level:** A dropdown menu.
- Diet & Lifestyle:** A text area. A red circle with the number "12" is next to the text area.

Figure 3.2.1-6 MTAC Reporting – Assessment on Social History

### STEP 9

Select on **Pregnancy** radio button

- Yes
- No
- Planning to Get Pregnant

### STEP 10

Select on **Alcohol Drinking** radio button

- Yes
- No

### Note

**Amount** field will be enabled if user select 'Yes' radio button

#### **STEP 11**

Select **Drug Abuse** radio button

- Yes
- No

#### **Note**

*Blank field will be enabled if user select 'Yes' radio button*

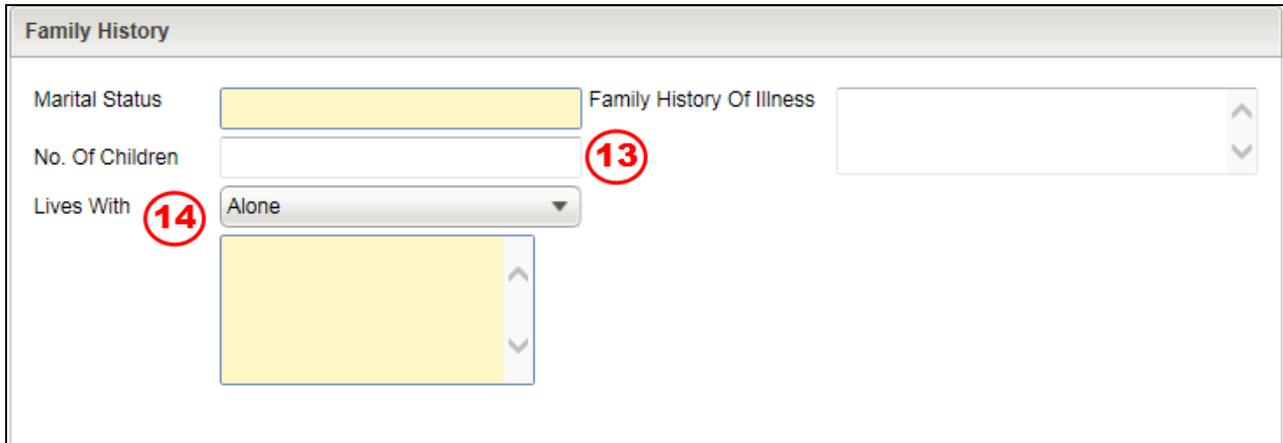
#### **STEP 12**

Enter **Diet & Lifestyle**

#### **Note**

- **Pregnancy** field will only be available for married female
- **Education Level** and **Marital Status** information will be retrieved from Patient's Demographic

## Family History



The screenshot shows a form titled "Family History" with the following fields:

- Marital Status: A yellow text input field.
- No. Of Children: A white text input field with a red circle containing the number "13" next to it.
- Lives With: A dropdown menu with "Alone" selected and a red circle containing the number "14" next to it.
- Family History Of Illness: A large white text area with a scroll bar.

Figure 3.2.1-7 MTAC Reporting – Assessment on Family History

### STEP 13

Enter **No. Of Children**

### STEP 14

Select **Lives with** from the drop down box

- Alone
- Family Members
- Nursing Home
- Others

### Note

- Blank fields will be enabled if user select 'Others' from the drop down box
- Enter **Family History of Illness** if available

## Medical History

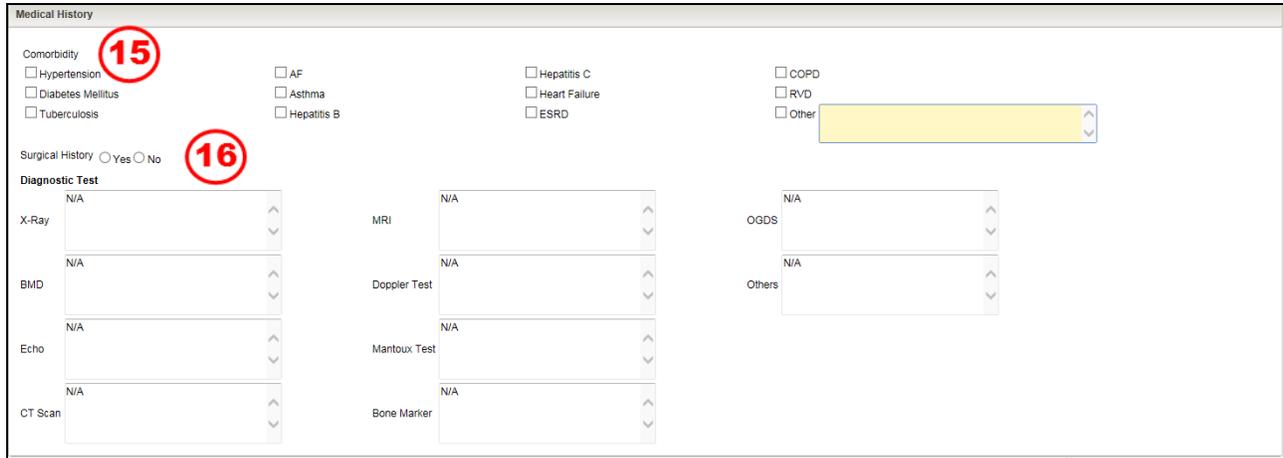
### STEP 15

Select **Comorbidity** from the check box

- Hypertension
- Diabetes Mellitus
- Tuberculosis
- AF
- Asthma
- Hepatitis B
- Hepatitis C
- Heart Failure
- ESRD
- COPD
- RVD
- Other

**Note**

Blank fields will be enabled if user select 'Other' check box



**Figure 3.2.1-8 MTAC Reporting – Assessment on Medical History**

**STEP 16**

Select **Surgical History** radio button

- Yes
- No

**Note**

• User can enter Diagnosis Test as below:

- a) **X-Ray**
- b) **BMD**
- c) **Echo**
- d) **CT Scan**
- e) **MRI**
- f) **Doppler Test**
- g) **Mantoux Test**
- h) **Bone Marker**
- i) **OGDS**
- j) **Others**

**MTAC REPORTING**

Consent Form | Lab Parameter | **CP1** | CP4 | Pharmaceutical Care Issue

Mykad: [Redacted] | Age: 23 Years 07 Months 16 Days | Gender: Female | MRN: HPSF00084284

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 158 cm | Weight: 45 kg | BMI/BSA: 18 / 1.41 m<sup>2</sup> | Update (Last Updated: 20/05/2015)

Encounter No: 0002 | Visit Date: 20/05/2015 | Attending Practitioner: [Redacted] | Visit Location: UNIT FARMASI KLINIK PAKAR

Type Of MTAC: Cardiac Rehab Program | Number Of MTAC Visit: 1

**Past Medication History**

Medication (Specify Strength)	Dose	Frequency	Balance From Previous Supply	Medication Status	Source of Medication	Comments
No Records Found!						

Non-Prescription Medication(Includes Herbal/Vitamin/Other Supplements)	Reason For Taking	Source of Medication	Balance/Comments
No Records Found!			

Save & Continue

**Figure 3.2.1-9 MTAC Reporting – Assessment on Past Medication History**

**Note**

Click on the  button to add 'Past Medication History' as shown in Figure 3.2.1-9. Further details in Section 3.2.2 Other Tabs

**STEP 17**

Click on the  button as shown in Figure 3.2.1-10 to save assessment and continue with reporting section

Past Medication History

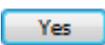
Medication (Specify Strength)	Dose	Frequency	Balance From Previous Supply	Medication Status	Source of Medication	Comments
No Records Found!						

Non-Prescription Medication(Includes Herbal/Vitamin/Other Supplements)	Reason For Taking	Source of Medication	Balance/Comments
No Records Found!			

**17** Save & Continue

**Figure 3.2.1-10 MTAC Reporting – Assessment Past Medication History**

**STEP 18**

Click on the  button to confirm

**CONFIRMATION**

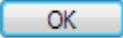
CONF0002: Are you sure you want to save?

**18**

Cancel Yes No

**Figure 3.2.1-11 Confirmation Alert Message**

### STEP 19

Click on the  button to confirm record

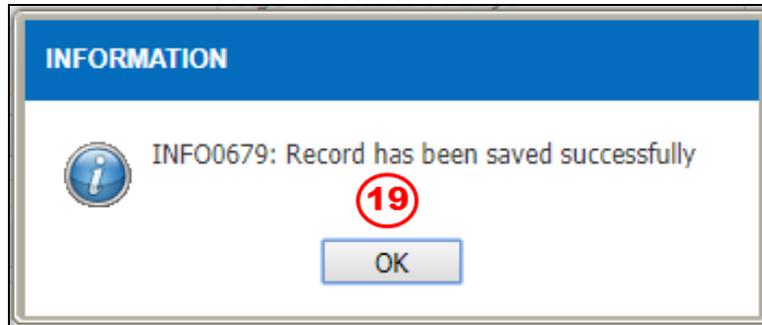


Figure 3.2.1-12 Information Alert Message

### Note

- User will be able to close the record at reporting screen or continue with the reporting section.
- Click on the **Reporting** row (blue color) once and scroll down to continue with the reporting process.
- “Recommended Lab Test field” was removed and rearranged the Pharmacist Note and Remarks field.
- ‘Compliance Score’ was renamed to “Adherence Score”.

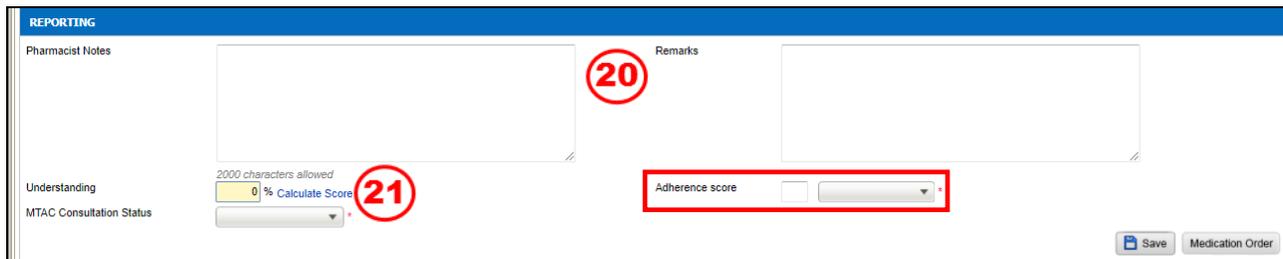


Figure 3.2.1-13 MTAC Reporting

### STEP 20

Enter the **Pharmacist Notes** and **Remarks** if available

### STEP 21

Click on the [Calculate Score](#) hyperlink for **Understanding** and the ‘**Review of Patient’s Understanding (Medication) DFIT**’ will be displayed as shown in Figure 3.2.1-14

Figure 3.2.1-14 Review of Patient's Understanding (Medication) DFIT

**STEP 22**

Select **Drug** by clicking on the button

**Note**

- Select **Dose, Frequency, Indication and Time of Administration** from the radio button:
  - Yes
  - No
- Score will be automatically calculated and displayed.

**STEP 23**

Click on the button to add and update at drug list

Figure 3.2.1-15 Review of Patient's Understanding (Medication) DFIT

**STEP 24**

Click on the button to save the Understanding calculator record

Figure 3.2.1-16 Confirmation alert message

### STEP 25

Click on the  button to confirm save record

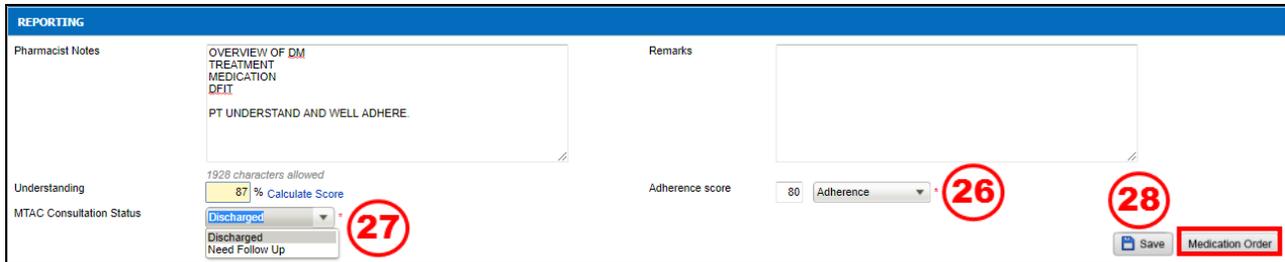


Figure 3.2.1-17 MTAC Reporting - Reporting

### STEP 26

Enter the Adherence Score and select the status

- Adherence
- Non Adherence

### STEP 27

Select **MTAC Consultation Status** from the drop down box

- Discharged
- Need Follow Up

### Note

- Medication Order button reallocate at the bottom of the screen.
- Click on the  button to view medication order screen and perform MTAC medication order if necessary.

### STEP 28

Click on the  button as shown in Figure 3.2.1-17

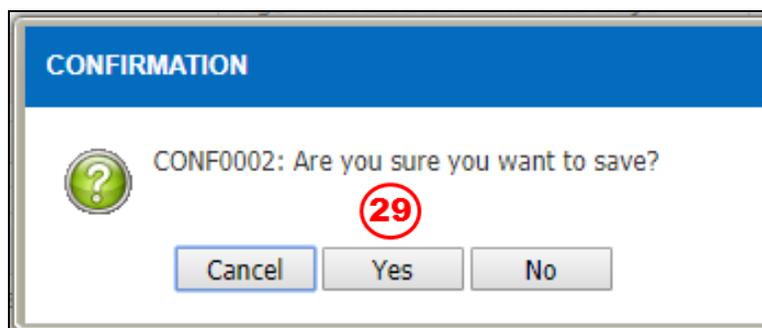


Figure 3.2.1-18 Confirmation Alert Message

### STEP 29

Click on the  button to confirm save record

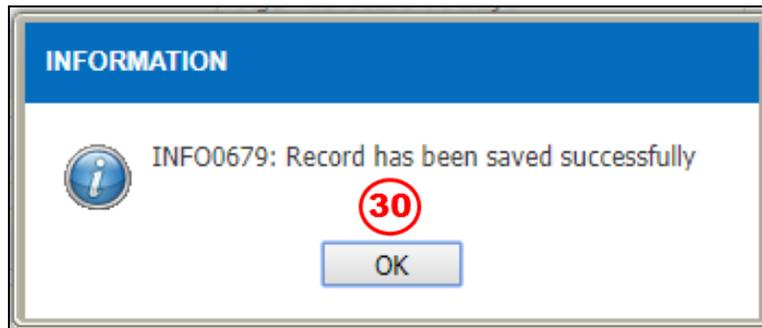
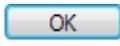


Figure 3.2.1-19 Information Alert Message

**STEP 30**

Click on the  button

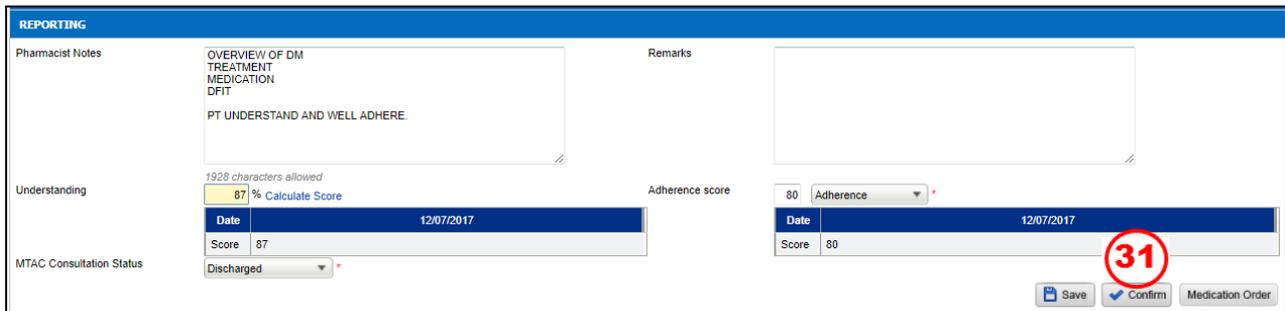


Figure 3.2.1-19 MTAC Reporting – Reporting

**STEP 31**

Click on the  button to confirm reporting

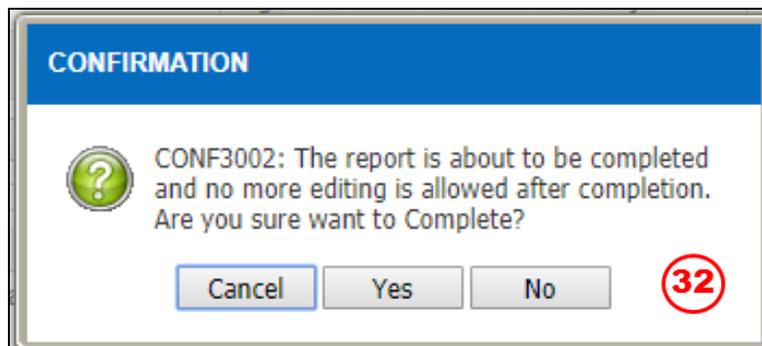


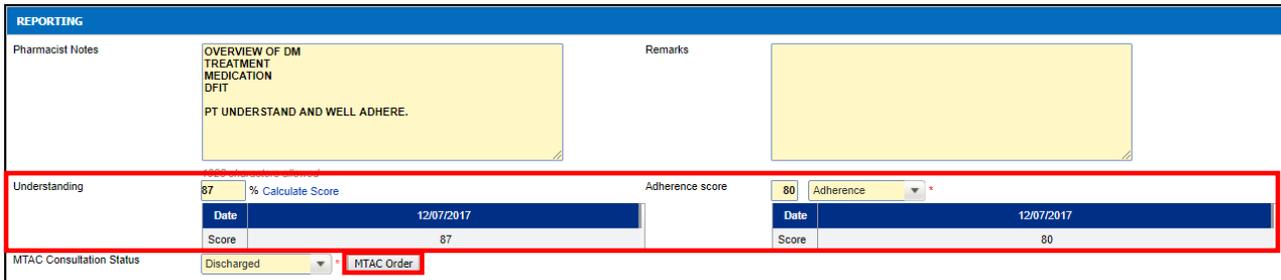
Figure 3.2.1-20 Confirmation Alert Message

**STEP 32**

Click on the  button to complete

**Note**

- After user has confirmed the record, no more editing is allowed and the boxes change to yellow color.
- User can click on the **MTAC Order** button to schedule an appointment as per Figure 3.2.1-21
- Previous Adherence Score record from previous visit is display (if any – max 5 newest record).

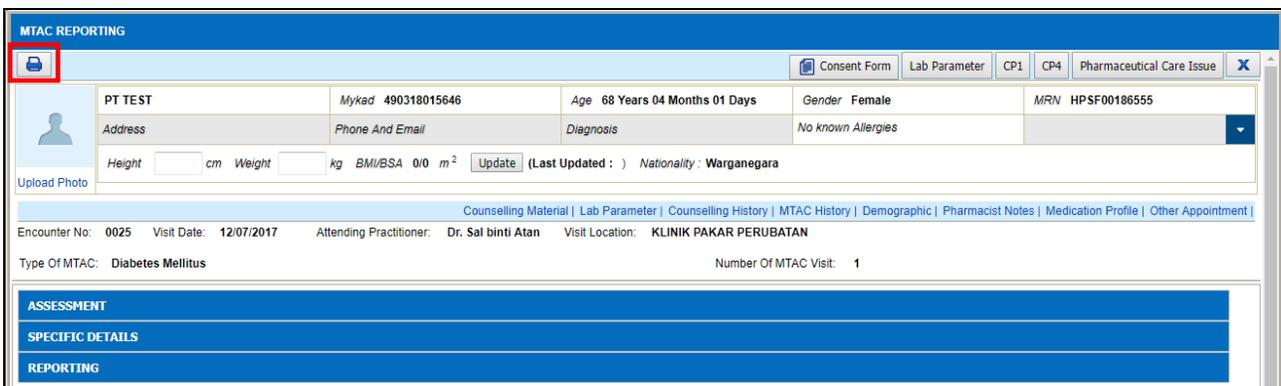


The screenshot shows a 'REPORTING' section with two yellow boxes for 'Pharmacist Notes' and 'Remarks'. Below them is a table of adherence scores:

Understanding	Score	Date	Adherence score	Date
87	% Calculate Score	12/07/2017	80	12/07/2017
	87		80	

At the bottom, the 'MTAC Consultation Status' is 'Discharged' and there is a red-bordered button labeled 'MTAC Order'.

**Figure 3.2.1-21 Confirmation Alert Message**



The screenshot shows the 'MTAC REPORTING' interface. A print icon (printer symbol) is highlighted with a red box in the top left corner. The interface displays patient information, encounter details, and navigation tabs like 'ASSESSMENT', 'SPECIFIC DETAILS', and 'REPORTING'.

**Figure 3.2.1-22 MTAC Reporting - Print**

- Click on the  button to print the MTAC report as per Figure 3.2.1-22 and the system will show the report as per Figure 3.2.1-23
- Default to "No history of taking Non-Prescription Medication" if no data in table (in printed report).
- Add "Prescriber Review" Column
- If there is no data in both table, please display as below:
  - No Prescribed Medication Related Issue
  - No Other Issue
- Show "Current Medication" in the report printing
- Add Intervention Date in PCI reporting screen for prescribed Medication issue.

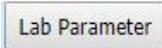


### 3.2.2 Other Tabs

#### Lab Parameter

Figure 3.2.2-1 MTAC Reporting Screen

STEP 1

Click on the  button to enter Lab Test Result and the system will show Figure 3.2.2-2

Normal Range	Result	Adult	Children	Neonates	Infant
TWBC	x10 <sup>9</sup> /L	4 - 11 x 10 <sup>9</sup>	4.5-13.5	5-21	6-18
Neutrophils		0.4-0.7	55	40	30
Lymphocytes		0.22-0.44	38	63	48
Eosinophils		0-0.08			
Basophils		0-0.03			
RBC (L)	x10 <sup>6</sup>	4.5- 6.3 x 10 <sup>12</sup>	3.7 - 6.5 x 10 <sup>12</sup>	3.7 - 6.5 x 10 <sup>12</sup>	
Hb (g/dL)	g/100ml	Male 13.5 - 17.5 Female 12 - 16			
HCT		Male 0.41 - 0.53 Female 0.36 - 0.46	0.31 - 0.37	0.28 - 0.55	0.33 - 0.39
Platelet (L)	x10 <sup>9</sup>	150 - 400 x 10 <sup>9</sup>			
MCV (fL)	fL	80 - 100	76 - 80		70 - 74
MCH (pg/cell)		26 - 34	26-32	29	27
MCHC (g/L)		310 - 370	310 - 370	290 - 380	

Figure 3.2.2-2 Lab Parameter Screen

STEP 2

Click on the Lab Test Tabs as per Figure 3.2.2-2

The screenshot shows the 'LAB PARAMETER' window with the 'Blood Sugar' tab selected. The 'Sample Date/Time' field contains '10/07/2017 02:00 PM'. The 'Normal Range' table is as follows:

	Result	Adult	Children	Neonates & Infant
FBS (mmol/L)	6	<= 7		
RBS (mmol/L)	12	<= 11.1		
2HPP (mmol/L)	10	<= 11.1		
HbA1c (%)	5	< 6.5		

The 'Remarks' field contains the text: 'FBS 2HPP & HbA1c are normal. RBS slightly high.' The 'Add/Update' button is visible at the bottom right.

Figure 3.2.2-3 Lab Parameter Screen

**STEP 3**

Click on the calendar button to select the **Sample Date/Time**

**STEP 4**

Enter the Lab Test **Result** and **Remarks**

**STEP 5**

Click the button and **Result List** will be updated as per Figure 3.2.2-4

The screenshot shows the 'LAB PARAMETER' window with the 'Blood Sugar' tab selected. The 'Sample Date/Time' field is empty. The 'Normal Range' table is the same as in Figure 3.2.2-3. The 'Remarks' field is empty. The 'Add/Update' button is visible at the bottom right. The 'Result List' table is updated with the record from Figure 3.2.2-3:

Sample Date/Time	FBS	RBS	2HPP	HbA1c	Remarks
10/07/2017 02:00 PM	6	12	10	5	FBS 2HPP & HbA1c are normal. RBS slightly high.

Figure 3.2.2-4 Lab Parameter Screen

**STEP 6**

Click on the button to save the record

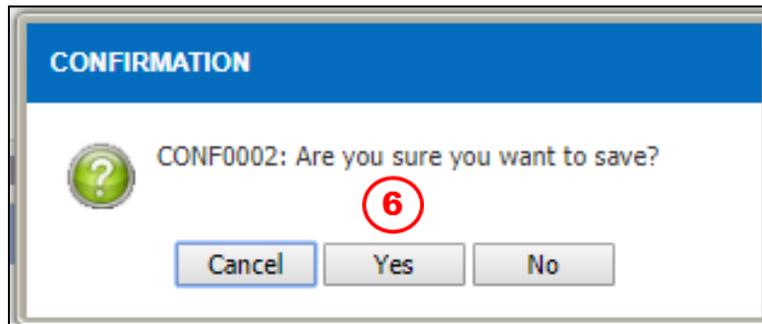


Figure 3.2.2-5 Confirmation Alert Message

**STEP 6**

Click on the  button to confirm

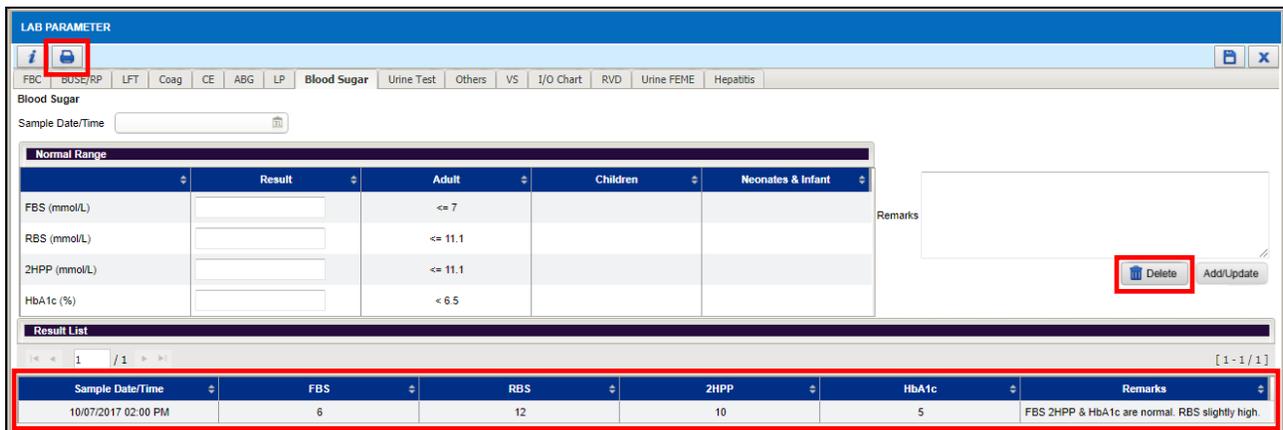
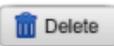


Figure 3.2.2-6 Lab Parameter Screen

**Note**

- To delete the record, double click the Result List and click the  button.
- To print the lab report, click on the  button as per Figure 3.2.2-6

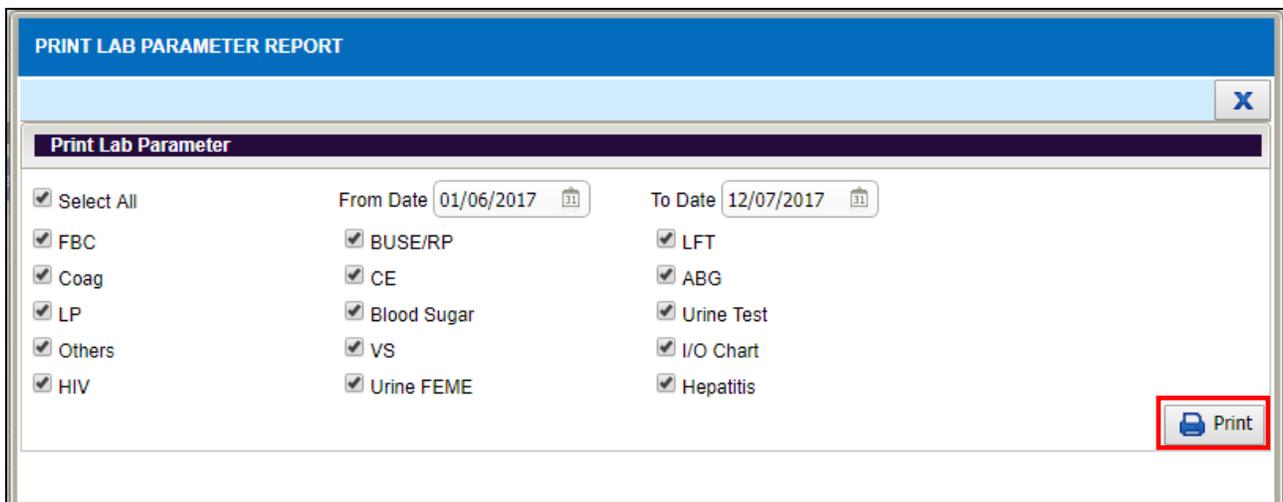
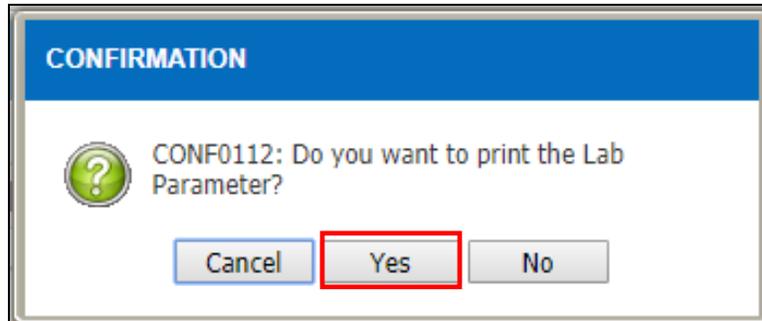
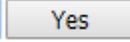


Figure 3.2.2-7 Print Lab Parameter Report

- Tick the  checkbox to select the **Lab Test** and Select **From Date & To Date** by clicking the  button.
- Click the  **Print** button to print the Lab Parameter Report as per Figure 3.2.2-7



**Figure 3.2.2-8 Confirmation Alert Message**

- Click the  **Yes** button to confirm and the system will show the Lab Parameter Report as per Figure 3.2.2-9

PATIENT NAME : PT TEST		IC NO :	AGE : 68 Years 03 Months 25 Days	
MRN NO :	HPSF00186555	Weight/Height :	Kg / Cm	
WARD/BED :	KLINIK PAKAR PERUBATAN /	ADMISSION DATE :	12/07/2017	
		REASON FOR ADMISSION :		

**BUSE/RP**

Sample Date\Type	Urea	Na	K	SrCr	CrCl	Cl	Ca	Mg	PO4-	Remarks

**Coag**

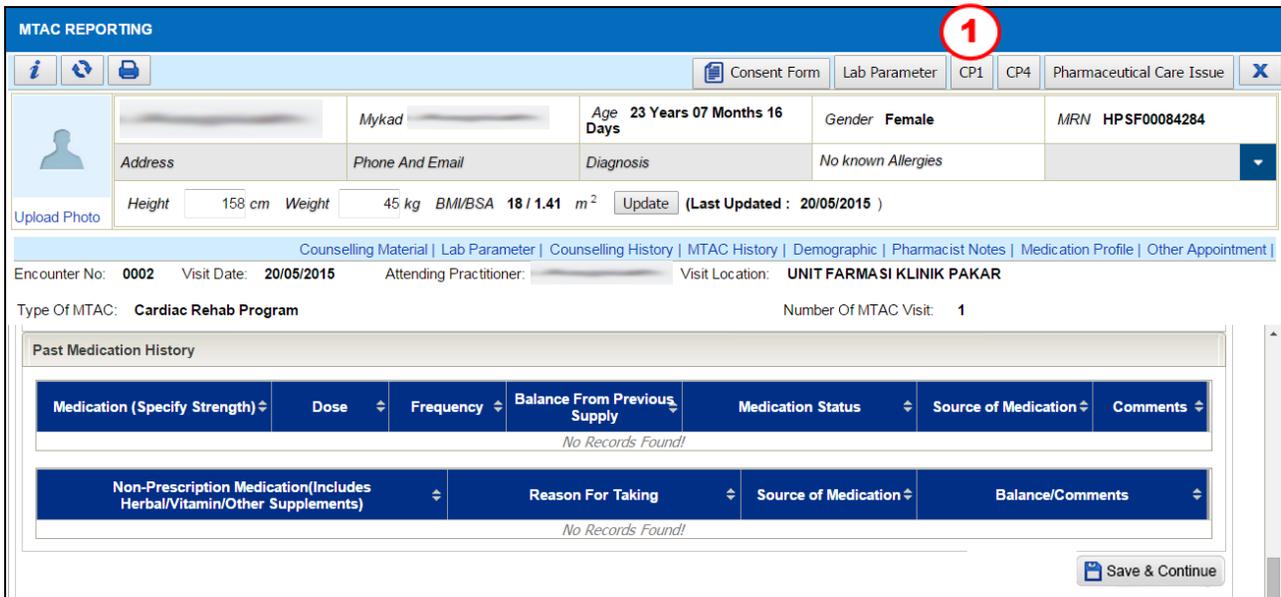
Sample Date\Type	PT	APTT	INR	Remarks
26/06/2017	13	28	1.2	All Normal

**Blood Sugar**

Sample Date\Type	FBS	RBS	2HPP	HbA1c	Remarks
10/07/2017	6	12	10	5	FBS 2HPP & HbA1c are normal. RBS slightly high.

**Figure 3.2.2-9 Lap Parameter Printed Report**

**CP1**



**MTAC REPORTING**

Consent Form | Lab Parameter | **CP1** | CP4 | Pharmaceutical Care Issue

Mykad: [Redacted] Age: 23 Years 07 Months 16 Days Gender: Female MRN: HPSF00084284

Address: [Redacted] Phone And Email: [Redacted] Diagnosis: [Redacted] No known Allergies

Height: 158 cm Weight: 45 kg BMI/BSA: 18 / 1.41 m<sup>2</sup> Update (Last Updated: 20/05/2015)

Encounter No: 0002 Visit Date: 20/05/2015 Attending Practitioner: [Redacted] Visit Location: UNIT FARMASI KLINIK PAKAR

Type Of MTAC: Cardiac Rehab Program Number Of MTAC Visit: 1

**Past Medication History**

Medication (Specify Strength)	Dose	Frequency	Balance From Previous Supply	Medication Status	Source of Medication	Comments
No Records Found!						

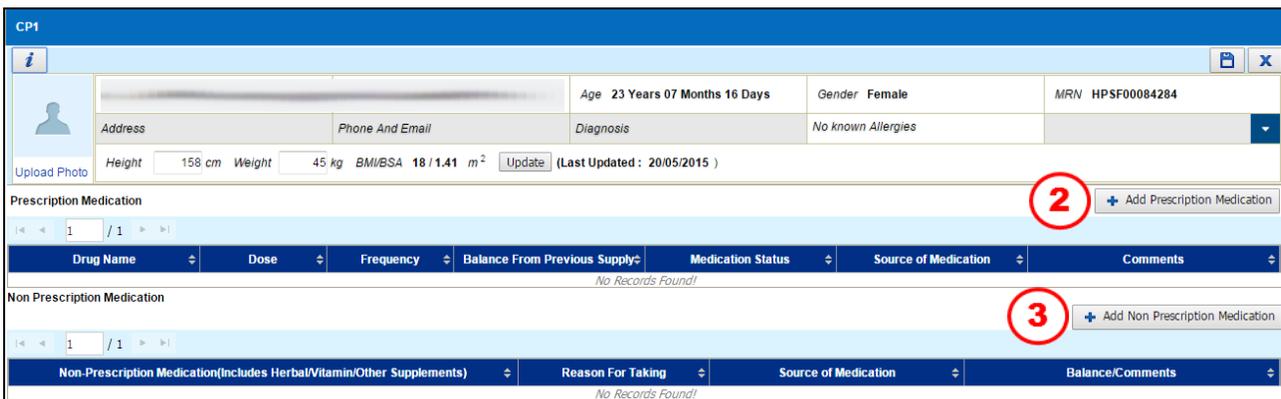
Non-Prescription Medication(Includes Herbal/Vitamin/Other Supplements)	Reason For Taking	Source of Medication	Balance/Comments
No Records Found!			

Save & Continue

**Figure 3.2.2-10 MTAC Reporting – Assessment on Past Medication History**

**STEP 1**

Click on the **CP1** button to add 'Past Medication History' as shown in Figure 3.2.2-10



**CP1**

Age: 23 Years 07 Months 16 Days Gender: Female MRN: HPSF00084284

Address: [Redacted] Phone And Email: [Redacted] Diagnosis: [Redacted] No known Allergies

Height: 158 cm Weight: 45 kg BMI/BSA: 18 / 1.41 m<sup>2</sup> Update (Last Updated: 20/05/2015)

**Prescription Medication** + Add Prescription Medication

Drug Name	Dose	Frequency	Balance From Previous Supply	Medication Status	Source of Medication	Comments
No Records Found!						

**Non Prescription Medication** + Add Non Prescription Medication

Non-Prescription Medication(Includes Herbal/Vitamin/Other Supplements)	Reason For Taking	Source of Medication	Balance/Comments
No Records Found!			

**Figure 3.2.2-11 CP1**

**STEP 2**

Click on the **+ Add Prescription Medication** button and the 'Prescription Medication' window will be displayed as shown in Figure 3.2.2-12. Enter the necessary information and save

**Note**

Past Medication History consist of:

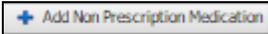
- Prescription Medication.
  - It has certain condition whereby the drug display at prescription medication come from the latest visit patient at that facility

- User can add prescriptions medication from other facility too

- Non Prescription Medication.

- User can add any none prescription medication that has been taken by patient in system

### STEP 3

Click on the  button and the 'Non Prescription Medication' window will be displayed as shown in Figure 3.2.2-13. Enter the necessary information and save

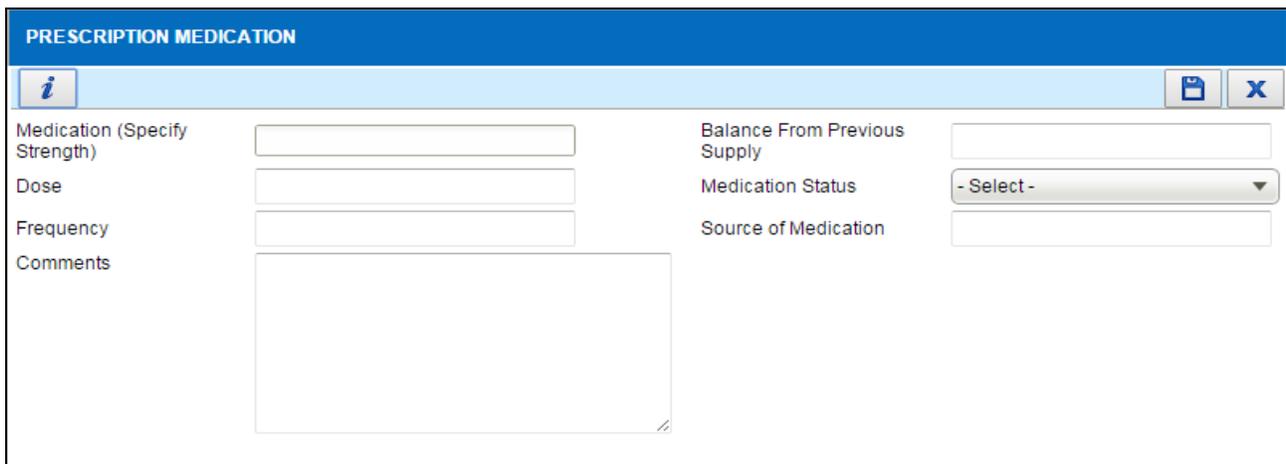


Figure 3.2.2-12 Prescription Medication

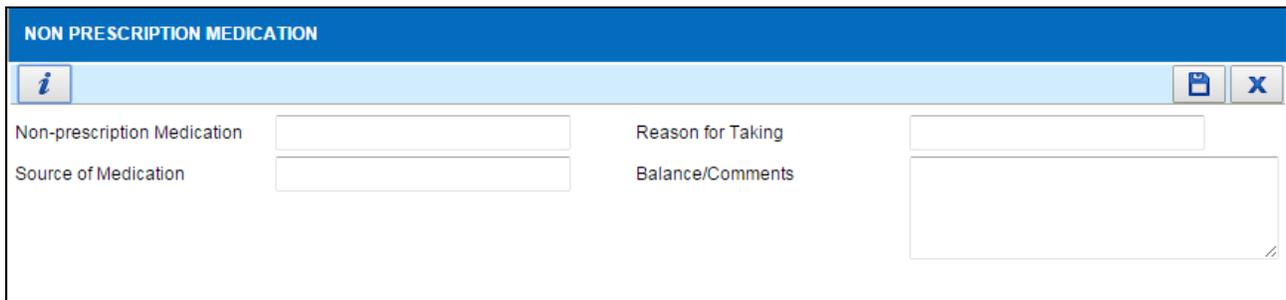


Figure 3.2.2-13 Non Prescription Medication

### Note

Click on the  button as shown in Figure 3.2.1-14 to edit or to add details to the medication.

**CP1**

*i* ✎ ✕

Age 23 Years 07 Months 16 Days Gender Female MRN HPSF00084284  
 Address Phone And Email Diagnosis No known Allergies  
 Upload Photo Height 158 cm Weight 45 kg BMI/BSA 18 / 1.41 m<sup>2</sup> Update (Last Updated : 20/05/2015 )

**Prescription Medication** + Add Prescription Medication

1 / 1

Drug Name	Dose	Frequency	Balance From Previous Supply	Medication Status	Source of Medication	Comments
Simvastatin 40 mg Tablet	40 mg	OD		Continue		
Atorvastatin 80 mg Tablet	30 mg	BD		Discontinue		

**Non Prescription Medication** + Add Non Prescription Medication

1 / 1

Non-Prescription Medication(Includes Herbal/Vitamin/Other Supplements)	Reason For Taking	Source of Medication	Balance/Comments
Shaklee			

Figure 3.2-2-14 CP1 (Edit)

**CP4**

**MTAC REPORTING**

*i* *↶* *↷* *🖨* Consent Form Lab Parameter CP1 **CP4** Pharmaceutical Care Issue ✕

PT TEST Mykad  Age 68 Years 03 Months 25 Days Gender Female 1 SF00186555  
 Address Phone And Email Diagnosis No known Allergies  
 Upload Photo Height  cm Weight  kg BMI/BSA 0/0 m<sup>2</sup> Update (Last Updated : ) Nationality : Warganegara

[Counselling Material](#) | [Lab Parameter](#) | [Counselling History](#) | [MTAC History](#) | [Demographic](#) | [Pharmacist Notes](#) | [Medication Profile](#) | [Other Appointment](#)

Encounter No: 0025 Visit Date: 12/07/2017 Attending Practitioner: Visit Location: KLINIK PAKAR PERUBATAN

Type Of MTAC: Diabetes Mellitus Number Of MTAC Visit: 1

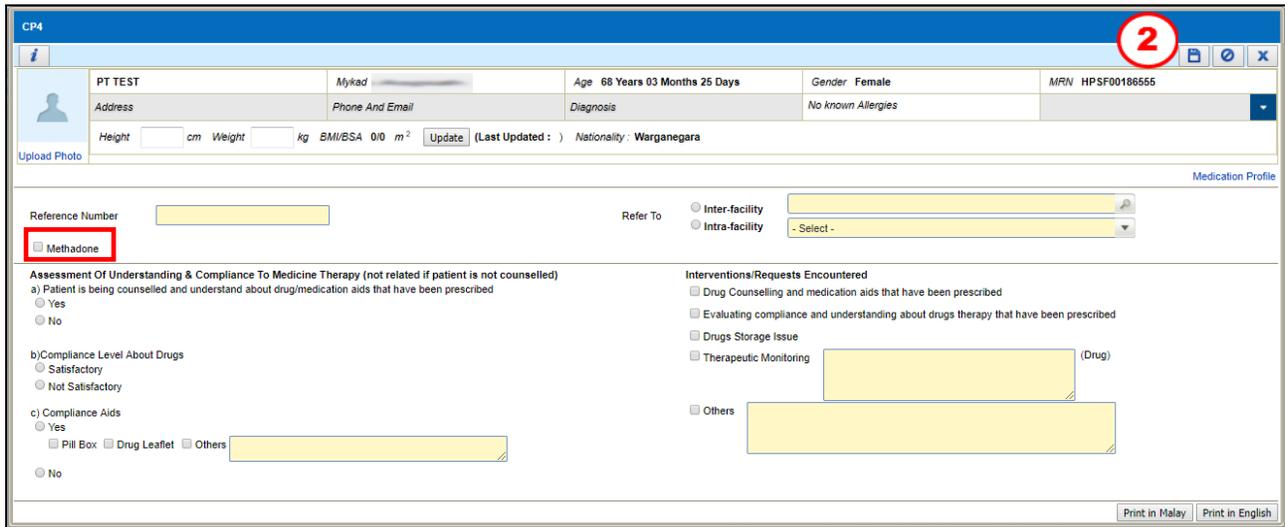
**ASSESSMENT**

<b>Social History</b> Smoking <input type="radio"/> Yes Sticks/Day <input type="text"/> For <input type="text"/> <input type="radio"/> No <input type="radio"/> Ex-smoker Pregnancy <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Planning To Get Pregnant Education Level <input type="text"/> Alcohol Drinking <input type="radio"/> Yes Amount <input type="text"/> <input type="radio"/> No Drug Abuse <input type="radio"/> Yes <input type="text"/> <input type="radio"/> No Diet & Lifestyle <input type="text"/>	<b>Family History</b> Marital Status <input type="text"/> No. Of Children <input type="text"/> Lives With <input type="text"/> Family History Of Illness <input type="text"/>
---	---

Figure 3.2.2-15 CP4 Screen

**STEP 1**

Click on the CP4 button to enter the details



CP4

PT TEST Mykad [redacted] Age 68 Years 03 Months 25 Days Gender Female MRN HPSF00186555

Address [redacted] Phone And Email [redacted] Diagnosis [redacted] No known Allergies

Height [redacted] cm Weight [redacted] kg BMI/BSA 0/0 m<sup>2</sup> Update (Last Updated : ) Nationality : Warganegara

Reference Number [redacted]

Refer To  Inter-facility  Intra-facility - Select -

Methadone

Assessment Of Understanding & Compliance To Medicine Therapy (not related if patient is not counselled)

a) Patient is being counselled and understand about drug/medication aids that have been prescribed

Yes  No

b) Compliance Level About Drugs

Satisfactory  Not Satisfactory

c) Compliance Aids

Yes  No

Pill Box  Drug Leaflet  Others [redacted]

Interventions/Requests Encountered

Drug Counselling and medication aids that have been prescribed

Evaluating compliance and understanding about drugs therapy that have been prescribed

Drugs Storage Issue

Therapeutic Monitoring [redacted] (Drug)

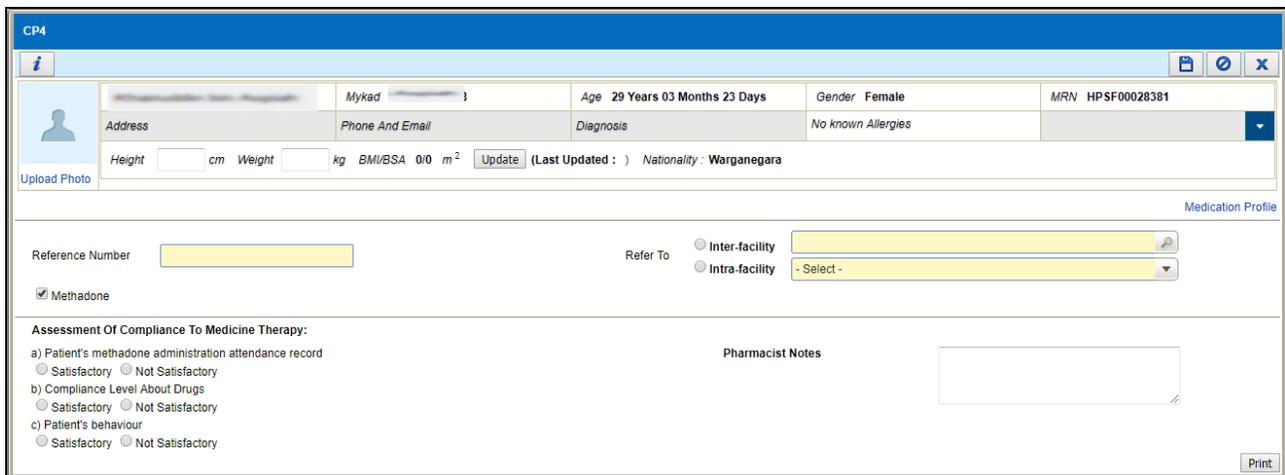
Others [redacted]

Print in Malay Print in English

Figure 3.2.2-16 CP4 Assessment Of Understanding & Compliance Screen

**Note**

- For Methadone, user can click on the Methadone checkbox  **Methadone** to assess the compliance as per Figure or proceed with the **Assessment Of Understanding & Compliance To Medicine Therapy** below and enter the **Interventions/Requests Encountered**



CP4

[redacted] Mykad [redacted] Age 29 Years 03 Months 23 Days Gender Female MRN HPSF00028381

Address [redacted] Phone And Email [redacted] Diagnosis [redacted] No known Allergies

Height [redacted] cm Weight [redacted] kg BMI/BSA 0/0 m<sup>2</sup> Update (Last Updated : ) Nationality : Warganegara

Reference Number [redacted]

Refer To  Inter-facility  Intra-facility - Select -

Methadone

Assessment Of Compliance To Medicine Therapy:

a) Patient's methadone administration attendance record

Satisfactory  Not Satisfactory

b) Compliance Level About Drugs

Satisfactory  Not Satisfactory

c) Patient's behaviour

Satisfactory  Not Satisfactory

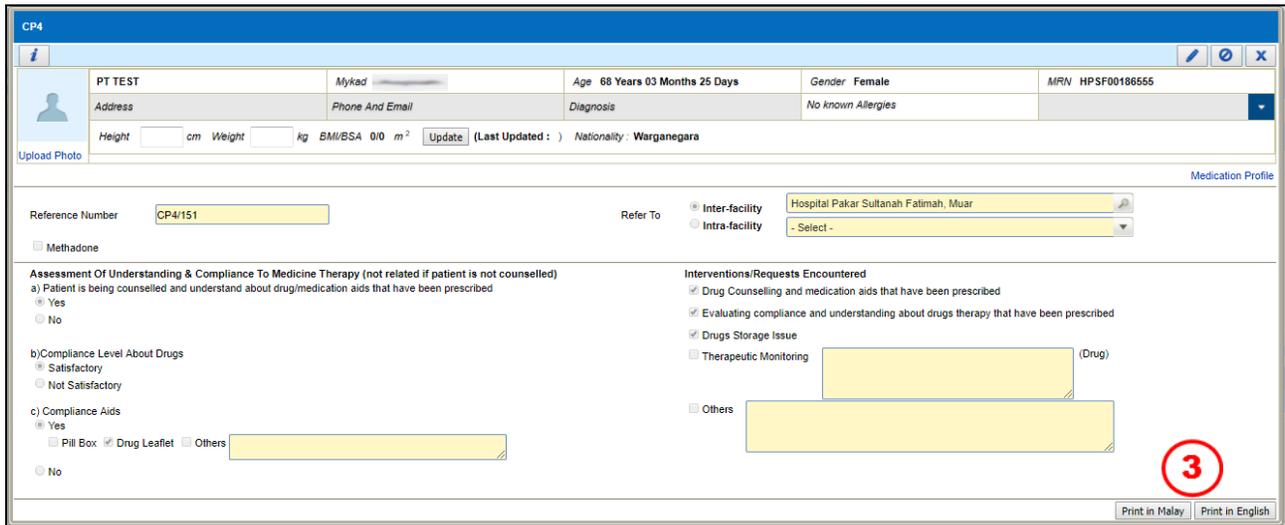
Pharmacist Notes [redacted]

Print

Figure 3.2.2-17 CP4 – Methadone Screen

**STEP 2**

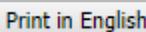
Click on the  button to save the record

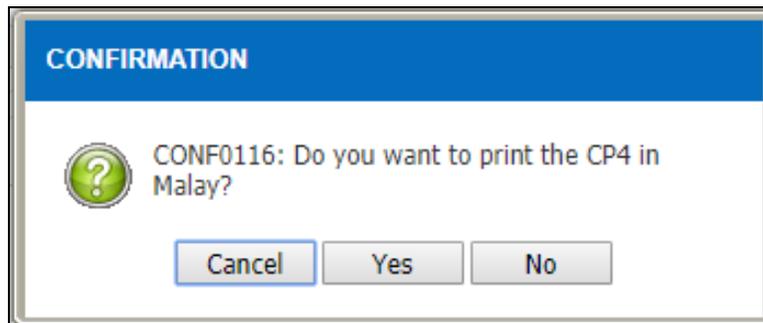


The screenshot shows a web-based form titled 'CP4'. At the top, there is a patient information section with fields for 'PT TEST', 'Mykad', 'Age 68 Years 03 Months 25 Days', 'Gender Female', and 'MRN HPSF00186555'. Below this are fields for 'Address', 'Phone And Email', 'Diagnosis', and 'No known Allergies'. A 'Height' and 'Weight' section is also present. The main body of the form contains a 'Reference Number' field with 'CP4/151' and a 'Refer To' section with radio buttons for 'Inter-facility' (selected) and 'Intra-facility'. There are two columns of checkboxes for 'Assessment Of Understanding & Compliance To Medicine Therapy' and 'Interventions/Requests Encountered'. A red circle with the number '3' is overlaid on the bottom right corner of the form.

Figure 3.2.2-18 CP4 Print Report

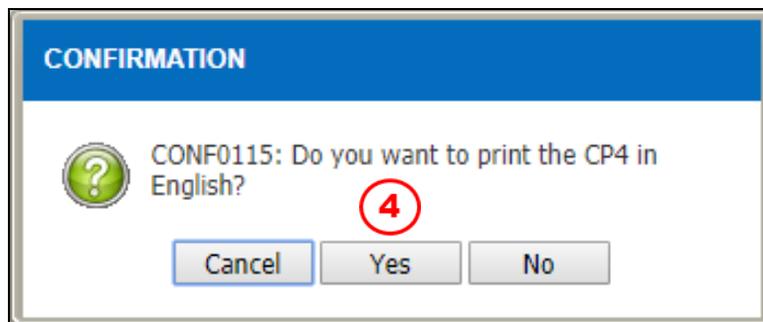
**STEP 3**

Click on the  or  to print the CP4 as per Figure 3.2.2-18



A confirmation dialog box with a blue header 'CONFIRMATION'. It contains a question mark icon and the text 'CONF0116: Do you want to print the CP4 in Malay?'. Below the text are three buttons: 'Cancel', 'Yes', and 'No'.

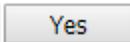
Figure 3.2.2-19 Confirmation Alert Message



A confirmation dialog box with a blue header 'CONFIRMATION'. It contains a question mark icon and the text 'CONF0115: Do you want to print the CP4 in English?'. Below the text are three buttons: 'Cancel', 'Yes', and 'No'. A red circle with the number '4' is overlaid on the 'Yes' button.

Figure 3.2.2-20 Confirmation Alert Message

**STEP 4**

Click on the  button to confirm and the Referral Note will be display as per Figure 3.2.2-20

**KEMENTERIAN KESIHATAN MALAYSIA**

Hospital Pakar Sultanah Fatimah, Muar

Pharmacy Department

**REFERRAL NOTE**

CP4/151

TO:

Medical Officer / Pharmacist : Hospital Pakar Sultanah Fatimah, Muar

RE: PATIENT REFERRAL

\_\_\_\_\_ **PT TEST** \_\_\_\_\_ / \_\_\_\_\_ **HP SF00186555** \_\_\_\_\_ / \_\_\_\_\_ **490318015646** \_\_\_\_\_  
 Name MRN

This patient HAS / NOT BEEN GIVEN MEDICATION COUNSELING for understanding of the treatment that have been prescribed. We expect that you can give the counselling & further evaluation that needed to increase the effectiveness of the treatment.

**2. DIAGNOSIS :**

None

**3. LIST OF CURRENT DRUG :**

Drug Name	Dose	Frequency	Start Date	End Date	Supply Period
Insulin regular (Insuman Rapid) 100 IU/mL Penfill	1 IU	OD (once daily)	11/07/2017	10/08/2017	30 Days
Simvastatin 40 mg Tablet	20 mg	ON (every night)	11/07/2017	10/08/2017	30 Days
metFORMIN HCl 500 mg Tablet	500 mg	TDS (3 times a day)	11/07/2017	10/08/2017	30 Days
Acetylsalicylic Acid 100 mg, Glycine 45 mg Tablet	1 tablet	OM (every morning)	11/07/2017	10/08/2017	30 Days

**4. UNDERSTANDING ASSESSMENT & COMPLIANCE TO DRUG**

(not applicable if the patient has not been counseled):

- a) The patient has been counseled and understand the drug/medication aids prescribed  Yes  No
- b) Compliance level about Drugs  Satisfactory  Not-Satisfactory
- c) Compliance Aids  Pill Box  Drug Message  Others  No

**5. INFORMATION / REQUESTS ENCOUNTERED :**

[Please tick (  ) in the box provided]

<input checked="" type="checkbox"/>	Drug counselling and medication aids that have been prescribed
<input checked="" type="checkbox"/>	Evaluate compliance with and understanding of the prescribed drug therapy
	Therapeutic monitoring: (Drug)
<input checked="" type="checkbox"/>	Drug storage issues
	Other:

Thank You,

Noraini Binti Saari

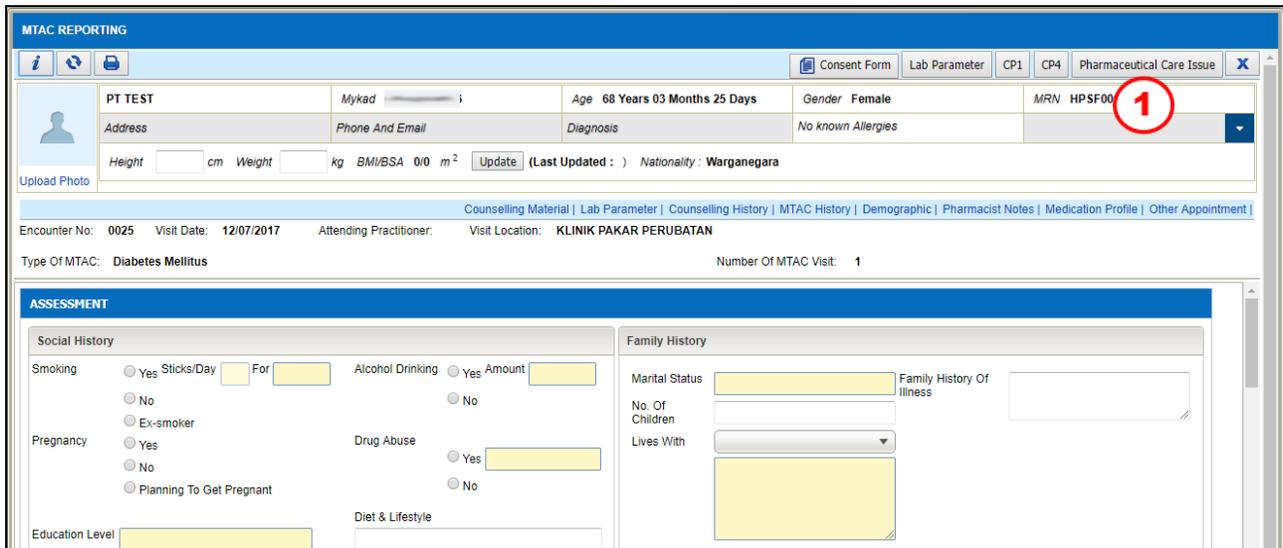
PF54

069521901

12/07/2017

**Figure 3.2.2-21 CP4 / Referral Note Printed Report**

## Pharmaceutical Care Issue



**MTAC REPORTING**

Consent Form | Lab Parameter | CP1 | CP4 | **Pharmaceutical Care Issue**

PT TEST: Mykad [redacted] | Age: 68 Years 03 Months 25 Days | Gender: Female | MRN: HPSF00 **1**

Address: [redacted] | Phone And Email: [redacted] | Diagnosis: [redacted] | No known Allergies

Height: [redacted] cm | Weight: [redacted] kg | BMI/BSA: 0/0 m<sup>2</sup> | Update | (Last Updated: ) | Nationality: Warganegara

Encounter No: 0025 | Visit Date: 12/07/2017 | Attending Practitioner: [redacted] | Visit Location: KLINIK PAKAR PERUBATAN

Type Of MTAC: Diabetes Mellitus | Number Of MTAC Visit: 1

**ASSESSMENT**

**Social History**

Smoking:  Yes Sticks/Day [redacted] For [redacted] |  No |  Ex-smoker

Pregnancy:  Yes |  No |  Planning To Get Pregnant

Alcohol Drinking:  Yes Amount [redacted] |  No

Drug Abuse:  Yes [redacted] |  No

Education Level: [redacted] | Diet & Lifestyle: [redacted]

**Family History**

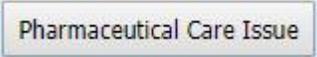
Marital Status: [redacted] | Family History Of Illness: [redacted]

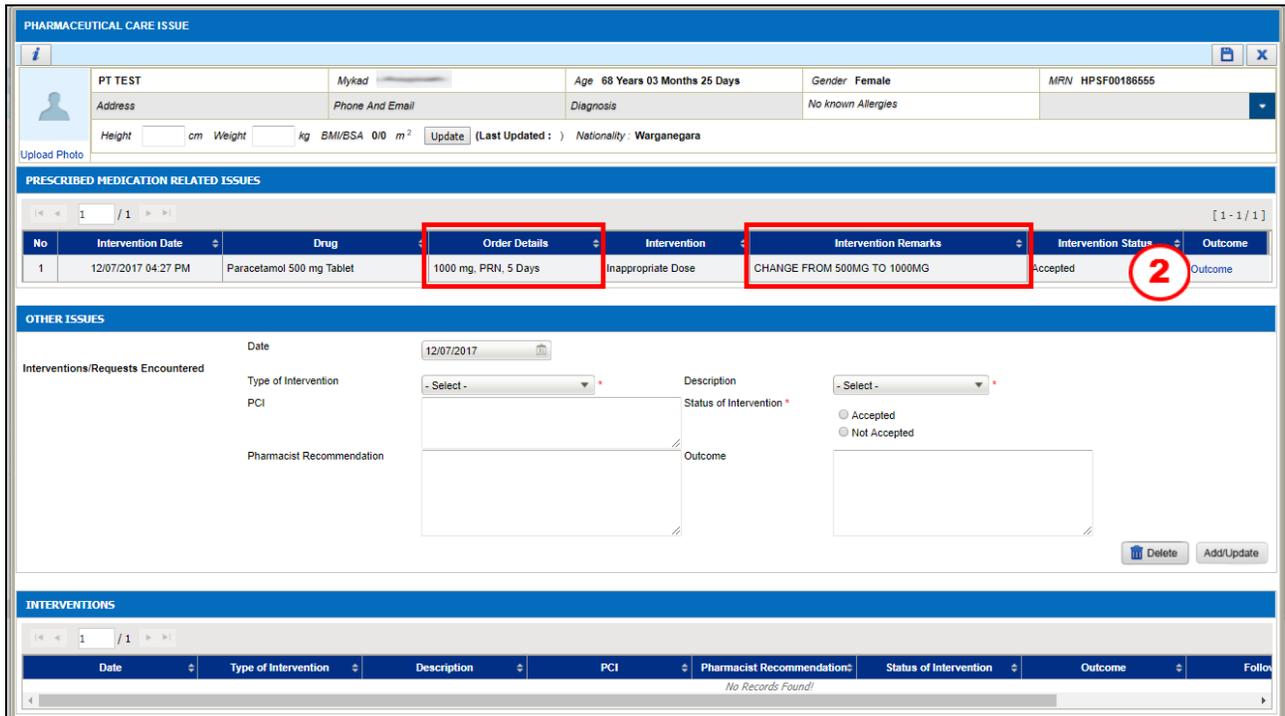
No. Of Children: [redacted]

Lives With: [redacted]

Figure 3.2.2-22 MTAC Reporting Screen

### STEP 1

Click on the  button and the system will show Figure 3.2.2-22



**PHARMACEUTICAL CARE ISSUE**

PT TEST Mykad [redacted] Age 68 Years 03 Months 25 Days Gender Female MRN HPSF00186555

Address [redacted] Phone And Email [redacted] Diagnosis [redacted] No known Allergies

Height [redacted] cm Weight [redacted] kg BMI/BSA 0/0 m<sup>2</sup> Update (Last Updated : ) Nationality : Warganegara

**PRESCRIBED MEDICATION RELATED ISSUES**

No	Intervention Date	Drug	Order Details	Intervention	Intervention Remarks	Intervention Status	Outcome
1	12/07/2017 04:27 PM	Paracetamol 500 mg Tablet	1000 mg, PRN, 5 Days	Inappropriate Dose	CHANGE FROM 500MG TO 1000MG	Accepted	Outcome

**OTHER ISSUES**

Date: 12/07/2017

Interventions/Requests Encountered

Type of Intervention: - Select -

PCI: [redacted]

Description: [redacted]

Status of Intervention:  Accepted  Not Accepted

Pharmacist Recommendation: [redacted]

Outcome: [redacted]

Buttons: Delete, Add/Update

**INTERVENTIONS**

Date	Type of Intervention	Description	PCI	Pharmacist Recommendation:	Status of Intervention	Outcome	Follow
No Records Found!							

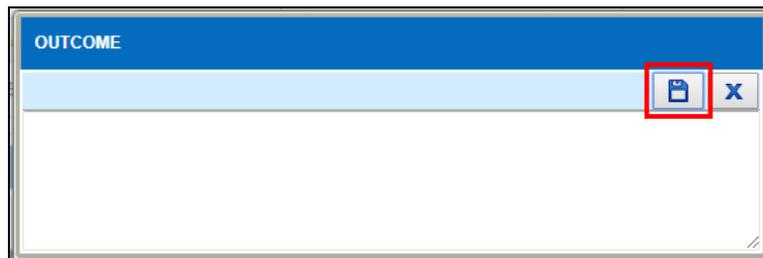
**Figure 3.2.2-23 PCI Screen**

**Note**

- The column for **Intervention Remarks** in PCI screen has been added.
- **Other Details** was renamed to **Order Details** as per Figure 3.2.2-23

**STEP 2**

Click on the [Outcome](#) hyperlink to enter the details. The system will display as per Figure 3.2.2-24. Save when done.



**OUTCOME**

Save icon (floppy disk) and Close icon (X) are highlighted with a red box.

**Figure 3.2.2-24 Outcome Screen**

**STEP 3**

Fill up the **Interventions/Requests Encountered** under **Other Issues** section as per Figure 3.2.2-24

**PHARMACEUTICAL CARE ISSUE**

PT TEST Mykad [redacted] Age 68 Years 03 Months 25 Days Gender Female MRN HPSF00186555

Address [redacted] Phone And Email [redacted] Diagnosis [redacted] No known Allergies

Height [redacted] cm Weight [redacted] kg BMI/BSA 0/0 m<sup>2</sup> Update (Last Updated : ) Nationality : Warganegara

Upload Photo

**PRESCRIBED MEDICATION RELATED ISSUES**

No	Intervention Date	Drug	Order Details	Intervention	Intervention Remarks	Intervention Status	Outcome
1	12/07/2017 04:27 PM	Paracetamol 500 mg Tablet	1000 mg, PRN, 5 Days	Inappropriate Dose	CHANGE FROM 500MG TO 1000MG	Accepted	Outcome

**OTHER ISSUES**

Interventions/Requests Encountered

Date: 12/07/2017

Type of Intervention: - Select -

PCI: [redacted]

Pharmacist Recommendation: [redacted]

Description: - Select -

Status of Intervention:  Accepted  Not Accepted

Outcome: [redacted]

Delete Add/Update

**INTERVENTIONS**

Date	Type of Intervention	Description	PCI	Pharmacist Recommendation	Status of Intervention	Outcome	Follow-up
No Records Found!							

Figure 3.2.2-25 Other Issues Screen

**STEP 4**

Click on the button to update and it will appear below under **Interventions** section as per Figure 3.2.2-26

**OTHER ISSUES**

Interventions/Requests Encountered

Date: 12/07/2017

Type of Intervention: - Select -

PCI: [redacted]

Pharmacist Recommendation: [redacted]

Description: - Select -

Status of Intervention:  Accepted  Not Accepted

Outcome: [redacted]

Delete Add/Update

**INTERVENTIONS**

Date	Type of Intervention	Description	PCI	Pharmacist Recommendation	Status of Intervention	Outcome	Follow-up	Checklist
12/07/2017	Incorrect/inappropriate/inadequate Regimen	Dose	PCM DOSAGE 500MG	1000MG	Accepted	TEMPERATURE DECREASE		<input type="checkbox"/>

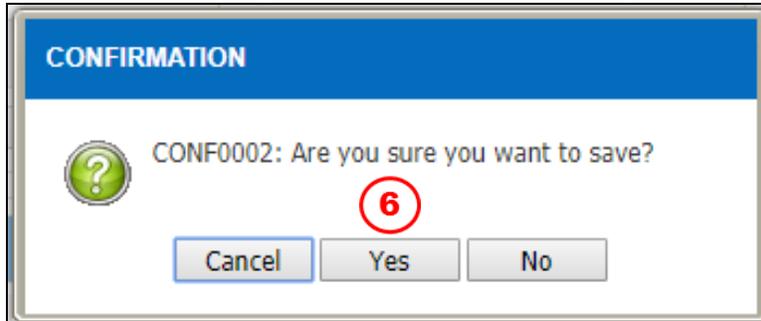
Figure 3.2.2-26 Interventions Section

**STEP 5**

Click on the button to save the record as per Figure 3.2.2-23

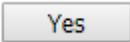
**Note**

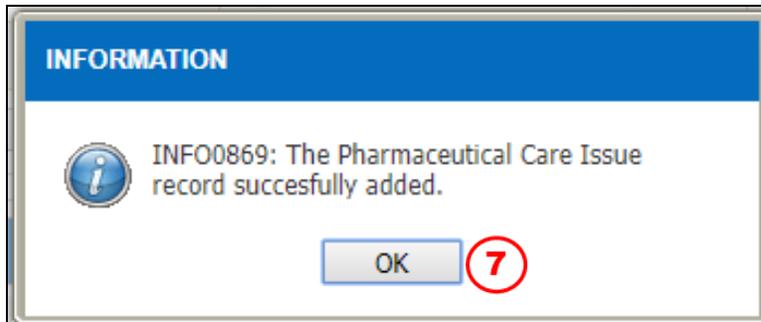
Tick on the  checkbox and click the  button to delete the intervention record.



**Figure 3.2.2-27 Confirmation Alert Message**

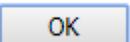
**STEP 6**

Click on the  button to confirm



**Figure 3.2.2.28 Information Alert Message**

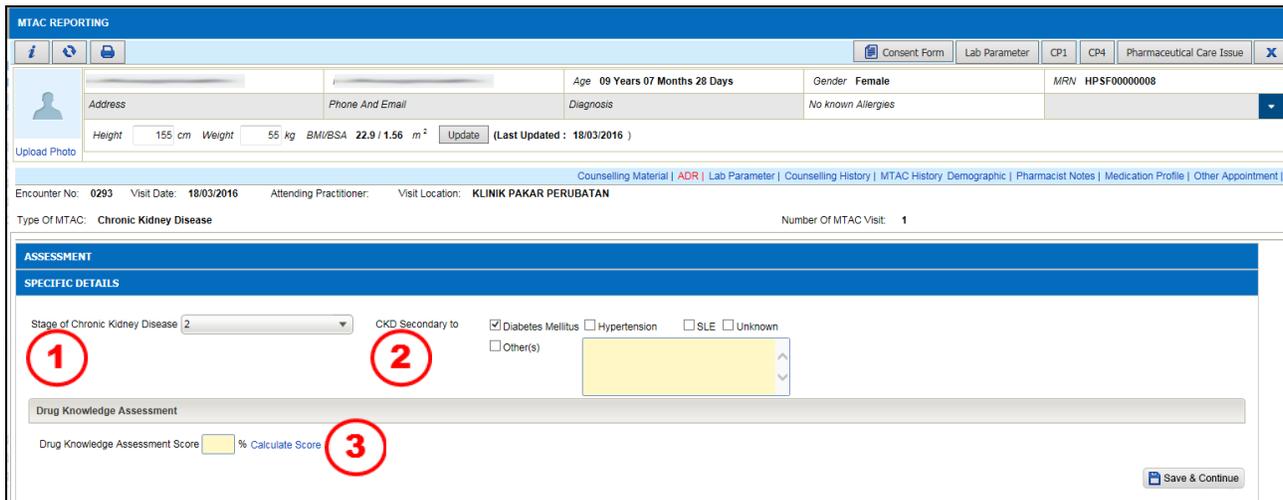
**STEP 7**

Click on the  button

### 3.2.3 Create New MTAC Reporting With Specific Details

#### 3.2.3.1 Chronic Kidney Disease

This function allows user to record Specific Details for Chronic Kidney Disease for MTA patients.



The screenshot displays the 'MTAC REPORTING' interface. At the top, there are navigation tabs for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this, patient information is shown, including 'Age 09 Years 07 Months 28 Days', 'Gender Female', and 'MRN HPSF00000008'. The 'SPECIFIC DETAILS' section is highlighted in blue and contains a dropdown for 'Stage of Chronic Kidney Disease' (set to '2'), a 'CKD Secondary to' section with checkboxes for 'Diabetes Mellitus', 'Hypertension', 'SLE', and 'Unknown', and a 'Drug Knowledge Assessment' section with a 'Calculate Score' button. Three red circles with numbers 1, 2, and 3 are overlaid on the interface to indicate the steps described in the text.

Figure 3.2.3.1-1 Specific Details – Chronic Kidney Disease

#### Note

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Chronic Kidney Disease.

#### STEP 1

Select **Stage of Chronic Kidney Disease** from the drop down box

- 1
- 2
- 3a
- 3b
- 4
- 5

#### STEP 2

Select the check box for **CKD Secondary to** as below:

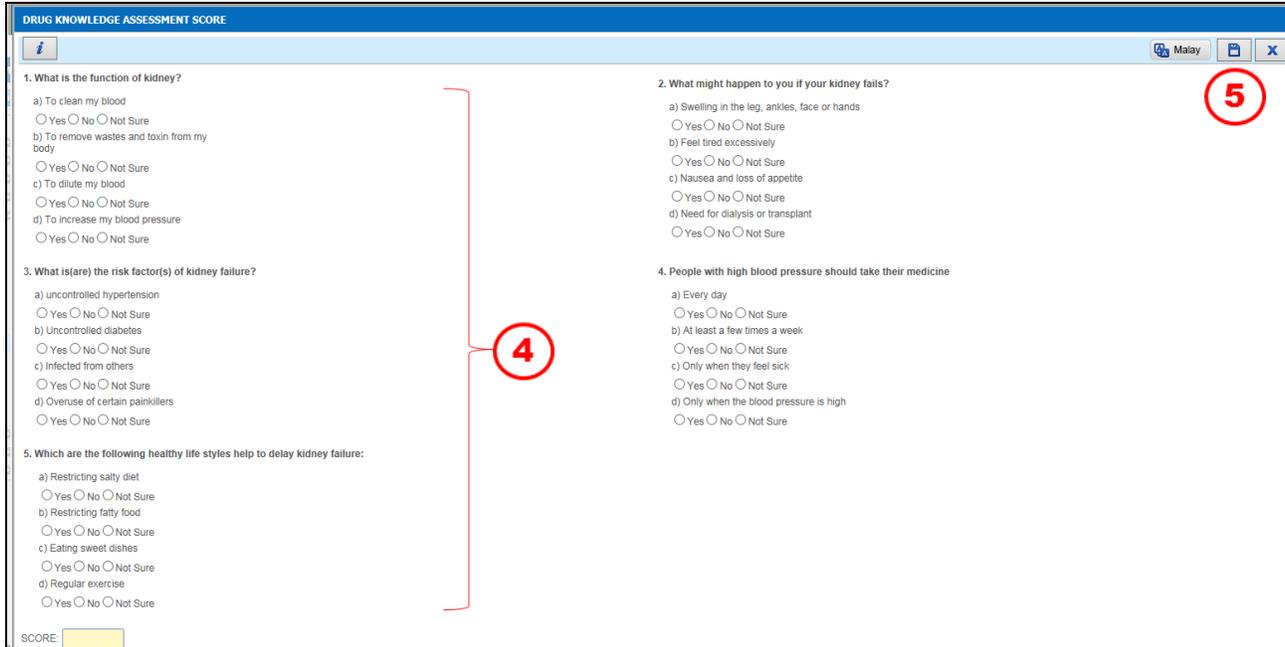
- Diabetes Mellitus
- Hypertension
- SLE
- Unknown
- Other(s)

#### Note

Blank fields will be enabled if user selects 'Other(s)' radio button.

### STEP 3

Click on the [Calculate Score](#) hyperlink and window for '**Drug Knowledge Assessment Score**' will be displayed as shown in Figure 3.2.3.1-2



**DRUG KNOWLEDGE ASSESSMENT SCORE**

1. What is the function of kidney?

a) To clean my blood  
 Yes  No  Not Sure

b) To remove wastes and toxin from my body  
 Yes  No  Not Sure

c) To dilute my blood  
 Yes  No  Not Sure

d) To increase my blood pressure  
 Yes  No  Not Sure

3. What is(are) the risk factor(s) of kidney failure?

a) uncontrolled hypertension  
 Yes  No  Not Sure

b) Uncontrolled diabetes  
 Yes  No  Not Sure

c) Infected from others  
 Yes  No  Not Sure

d) Overuse of certain painkillers  
 Yes  No  Not Sure

5. Which are the following healthy life styles help to delay kidney failure:

a) Restricting salty diet  
 Yes  No  Not Sure

b) Restricting fatty food  
 Yes  No  Not Sure

c) Eating sweet dishes  
 Yes  No  Not Sure

d) Regular exercise  
 Yes  No  Not Sure

2. What might happen to you if your kidney fails?

a) Swelling in the leg, ankles, face or hands  
 Yes  No  Not Sure

b) Feel tired excessively  
 Yes  No  Not Sure

c) Nausea and loss of appetite  
 Yes  No  Not Sure

d) Need for dialysis or transplant  
 Yes  No  Not Sure

4. People with high blood pressure should take their medicine

a) Every day  
 Yes  No  Not Sure

b) At least a few times a week  
 Yes  No  Not Sure

c) Only when they feel sick  
 Yes  No  Not Sure

d) Only when the blood pressure is high  
 Yes  No  Not Sure

SCORE:

Figure 3.2.3.1-2 Drug Knowledge Assessment Score

### STEP 4

Answer the questions for **Drug Knowledge Assessment** by checking the radio button for below:

1. **What is the function of kidney?**
2. **What might happen to you if your kidney fails?**
3. **What is (are) the risk factor(s) of kidney failure?**
4. **People with high blood pressure should take their medicine**
5. **Which are the following healthy life styles help to delay kidney failure:**

#### Note

- The questions are not mandatory to be answered.
- Click on the  button to view the questions in Malay language.
- Score will be automatically calculated and automatically displayed.

### STEP 5

Click on the  button to save the answered question(s)

### STEP 6

Click on the  button to confirm save record

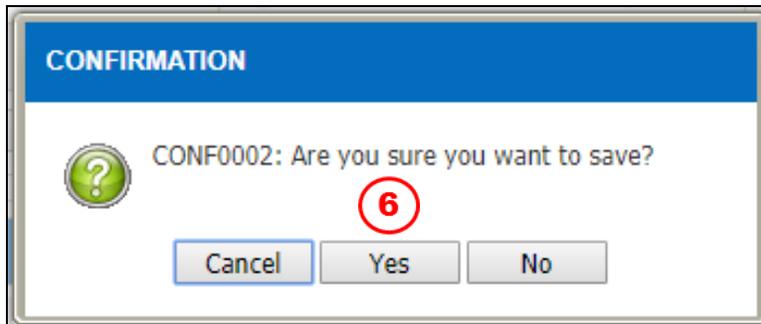


Figure 3.2.3.1-3 Confirmation Alert Message

### STEP 7

Click on the  button as shown in Figure 3.2.3.1-4 to save and continue with reporting section



A form titled "SPECIFIC DETAILS" for Chronic Kidney Disease. It includes a dropdown menu for "Stage of Chronic Kidney Disease" with the value "2". Below this is a section for "CKD Secondary to" with checkboxes for "Diabetes Mellitus", "Hypertension", "SLE", "Unknown", and "Other(s)". A yellow text box is present under "Other(s)". At the bottom, there is a "Drug Knowledge Assessment" section with a "Drug Knowledge Assessment Score" of "25" and a "Calculate Score" button. In the bottom right corner, the number "7" is circled in red, next to a "Save & Continue" button.

Figure 3.2.3.1-4 Specific Details – Chronic Kidney Disease

### STEP 8

Click on the  button to confirm save record

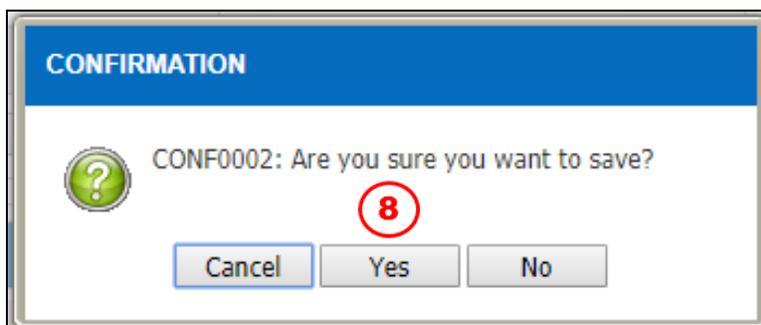


Figure 3.2.3.1-5 Confirmation Alert Message

## STEP 9

Click on the  button to confirm record

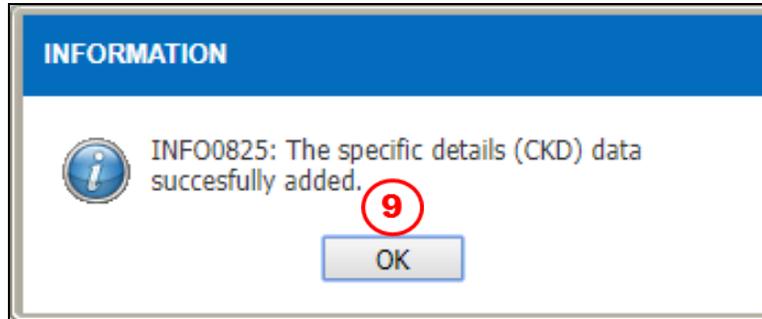


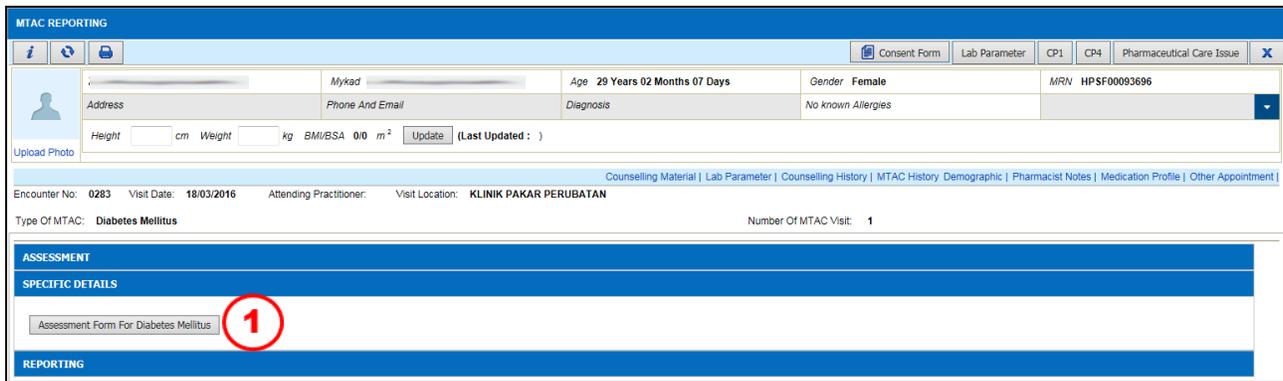
Figure 3.2.3.1-6 Information alert message

### Note

For '**Reporting**' section, repeat steps from the **Note (page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

### 3.2.3.2 Diabetes Mellitus

This function allow user to record Specific Details for Diabetes Mellitus for MTAC patient



The screenshot shows the 'MTAC REPORTING' interface. At the top, there are navigation tabs: 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this, patient information is displayed in a grid: 'Mykad', 'Age 29 Years 02 Months 07 Days', 'Gender Female', and 'MRN HPSF00093696'. There are also fields for 'Address', 'Phone And Email', 'Diagnosis', and 'No known Allergies'. A section for physical attributes includes 'Height', 'Weight', 'BMI/BSA 0/0 m²', and an 'Update' button. Below the patient info, there are links for 'Counselling Material', 'Lab Parameter', 'Counselling History', 'MTAC History', 'Demographic', 'Pharmacist Notes', 'Medication Profile', and 'Other Appointment'. The 'Encounter No: 0283', 'Visit Date: 18/03/2016', and 'Attending Practitioner: KLINIK PAKAR PERUBATAN' are also visible. The 'Type Of MTAC: Diabetes Mellitus' and 'Number Of MTAC Visit: 1' are shown. The main content area has a blue header 'ASSESSMENT' and a sub-header 'SPECIFIC DETAILS'. Under 'SPECIFIC DETAILS', there is a button labeled 'Assessment Form For Diabetes Mellitus' which is circled in red with the number '1'. At the bottom, there is a 'REPORTING' section.

Figure 3.2.3.2-1 Specific Details - Diabetes Mellitus

#### Note

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details Assessment Form for Diabetes Mellitus.

#### STEP 1

Click on the  button to view the specific details

#### STEP 2

Select the check box to answer the question(s)

#### Note

- The questions are not mandatory to be answered
- Click on the  button to print the assessment form
- 'Diabetes Mellitus Assessment' as shown in Figure 3.2.3.2-2 will be used during MTAC counselling

**DIABETES MELLITUS ASSESSMENT**

1. Kencing manis (Diabetes Mellitus) adalah penyakit? 2

- Paras gula dalam darah tinggi
- Kolesterol dalam darah tinggi
- Tekanan Darah Tinggi
- Tidak pasti

2. Fungsi gula (glukosa) di dalam badan adalah untuk?

- Menghasilkan tenaga
- Menghasilkan Oksigen
- Membina tisu badan
- Tidak pasti

3. Penyakit kencing manis disebabkan oleh factor berikut?

- Berat badan berlebihan
- Insulin dalam badan tidak mencukupi atau resistant
- Sejarah keluarga
- Virus atau jangkitan kuman
- Tidak pasti

4. Yang manakah antara berikut tanda-tanda paras gula di dalam darah tinggi (Hiperglisemia)?

- Mulut kering dan dahaga
- Turun berat badan
- Kerap kencing
- Kabur penglihatan
- Lapar

5. Yang manakah antara berikut tanda-tanda paras gula di dalam darah rendah (Hipoglisemia)?

- Tangan menggigil
- Berpeluh sejuk
- Kerap kencing
- Lapar
- Leth dan tidak bertenaga

6. Paras gula didalam darah rendah juga boleh berlaku sekiranya anda?

- Bersenam keterlaluan
- Tidak makan selepas mengambil ubat
- Mengambil ubat atau insulin berlebihan
- Makan berlebihan

7. Jika anda mengalami tanda-tanda hipoglisemia, apa yang patut dilakukan?

- Minum jus atau ambil gula-gula
- Periksa paras gula menggunakan glucometer
- Baring dan rehat
- Suntik insulin
- Bersenam

8. Apakah komplikasi (kesan buruk) penyakit kencing manis?

- Penglihatan kabur / katarak
- Penyakit buah pinggang
- Penyakit jantung
- Penyakit saraf? kebas-kebas
- Strok
- Mudah dapat jangkitan kuman
- Ulser

9. Apakah nama ubat kencing manis yang anda ambil? 3

- Metformin (Glucophage)
- Gliclazide (Diamicon)
- Gliclazide MR (Diamicon MR)
- Glibenclamide
- Rosiglitazone (Avandia)
- Acarbose
- Repaglinide (Novonorm)
- Insulin \_\_\_\_\_
- Tidak pasti

10. Bagaimana cara anda mengambil ubat-ubatan berkenaan?

- 30 minit sebelum makan
- Bersama makanan
- Sebaik selepas makan
- Sebaik sebelum makan
- Pada bila-bila masa

11. Adakah anda ada mengalami tanda-tanda berikut selepas mengambil ubat-ubatan kencing manis?

- Berat badan meningkat
- Kembang perut
- Loya / muntah
- Cint-birit / sembelit
- Perut berasa pedih / tidak selesa

12. Sekiranya anda terlupa mengambil /makan ubat-ubatan kencing manis, apakah yang anda lakukan?

- Makan ubat sebaik teringat
- Lupakan saja dos yang tertinggal
- Gandakan dos ubat seterusnya
- Memeriksa paras gula dalam darah

13. Apakah sasaran? paras gula dalam darah yang perlu dicapai oleh setiap pesakit diabetes?

- HbA1c <7 %
- Plasma glukosa (puasa) 4.4 ? 6.1 mmol/L
- 2 jam selepas makan /rambang 4.4 ?8.0mmol/l
- Plasma Glukosa > 10.00mmol/l (puasa)

Sila jawab soalan berikut, sekiranya anda mengambil suntikan insulin?

14. Dimanakah anda menyimpan Stok insulin?

- Dalam peti sejuk beku (0\u00EF\u00BF\u00BDC)
- Dalam peti sejuk (2 ?8 u00BAC)
- Atas peti sejuk
- Dalam almari

15. Dimanakah anda menyimpan Novopen /Humapen yang mengandungi insulin atau insulin yang sedang digunakan?

- Di dalam almari berkunci
- Di dalam peti sejuk
- Di dalam beg tangan
- Pada suhu bilik

16. Berapa kerap anda menukar jarum untuk suntikan insulin?

- Setiap kali digunakan
- Selepas 3 ?4 kali digunakan
- Sehingga jarum tumpul
- Sekali seminggu

Figure 3.2.3.2-2 Diabetes Mellitus Assessment

STEP 3

Click on the  button to save the answered question(s)

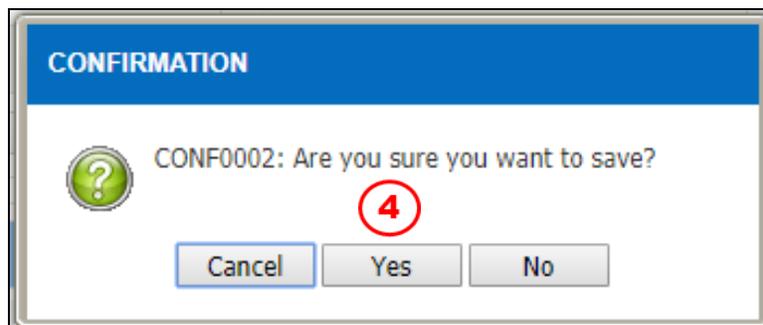


Figure 3.2.3.2-3 Confirmation Alert Message

#### STEP 4

Click on the  button to confirm save record

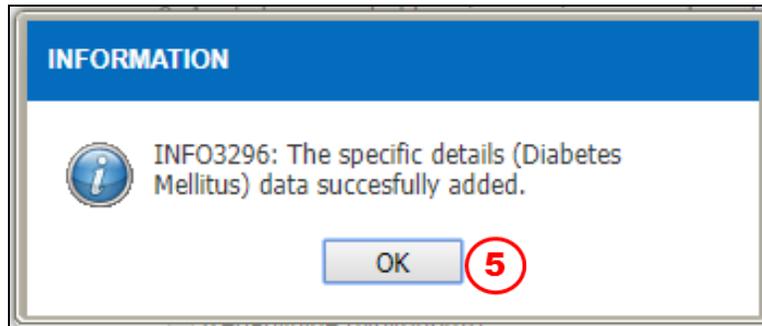


Figure 3.2.3.2-4 Information Alert Message

#### STEP 5

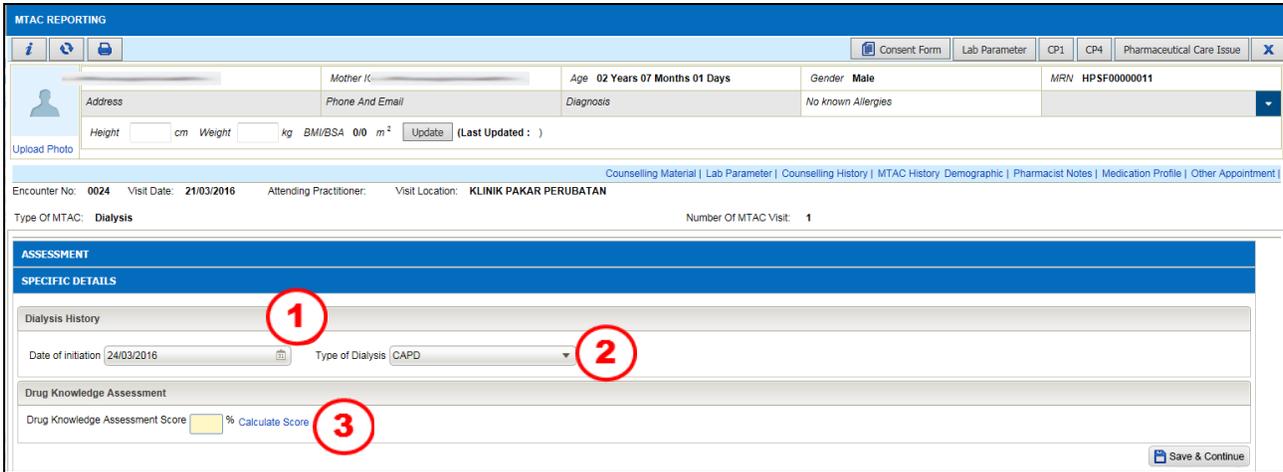
Click on the  button to confirm record

#### **Note**

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

### 3.2.3.3 Dialysis

This function allows users to record Specific Details for Dialysis for MTAC patients



The screenshot shows the 'MTAC REPORTING' interface. At the top, there are navigation tabs: 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this is a patient information section with fields for Address, Mother IC, Age (02 Years 07 Months 01 Days), Gender (Male), and MRN (HPSF0000011). There are also fields for Phone And Email, Diagnosis, and No known Allergies. A 'Height' field is set to 'cm' and 'Weight' to 'kg', with a BMI/BSA of 0/0 m<sup>2</sup>. An 'Update' button is next to the BMI/BSA field. Below the patient information is a section for 'Encounter No: 0024', 'Visit Date: 21/03/2016', 'Attending Practitioner', and 'Visit Location: KLINIK PAKAR PERUBATAN'. The 'Type Of MTAC' is 'Dialysis' and the 'Number Of MTAC Visit' is '1'. The main section is titled 'ASSESSMENT' and 'SPECIFIC DETAILS'. Under 'SPECIFIC DETAILS', there is a 'Dialysis History' section with a 'Date of initiation' field set to '24/03/2016' and a 'Type of Dialysis' dropdown menu set to 'CAPD'. Below this is a 'Drug Knowledge Assessment' section with a 'Drug Knowledge Assessment Score' field and a 'Calculate Score' button. A 'Save & Continue' button is at the bottom right.

Figure 3.2.3.3-1 Specific Details - Dialysis

#### **Note**

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Dialysis.

#### **Dialysis History**

##### **STEP 1**

Click on the  button to select **Date of initiation**

##### **STEP 2**

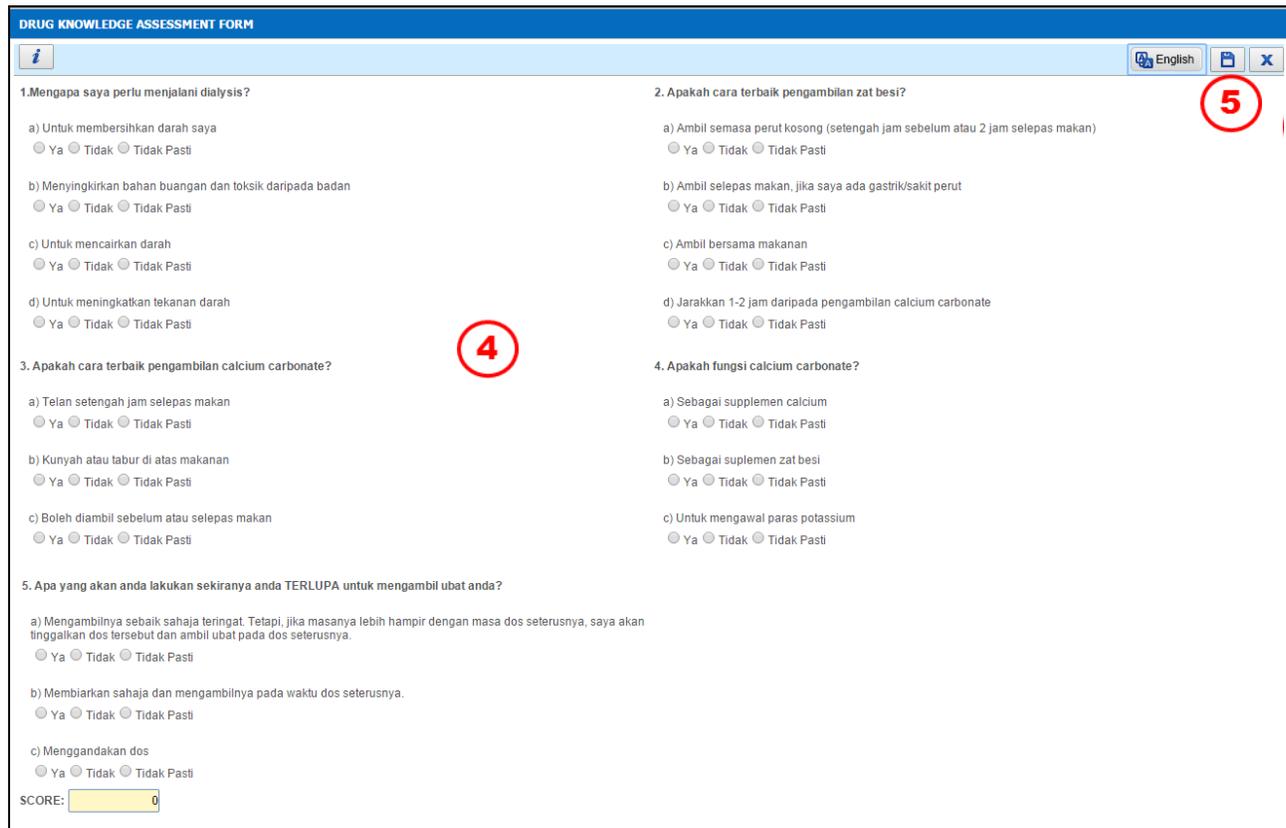
Select **Type of Dialysis** from the dropdown box

- APD
- CAPD
- HD

#### **Drug Knowledge Assessment**

##### **STEP 3**

Click on the [Calculate Score](#) and hyperlink '**Drug Knowledge Assessment Score** and '**Drug Knowledge Assessment Form**' window will be displayed as shown in Figure 3.2.3.3-2



**DRUG KNOWLEDGE ASSESSMENT FORM**

English

1. Mengapa saya perlu menjalani dialysis?

a) Untuk membersihkan darah saya  
 Ya  Tidak  Tidak Pasti

b) Menyingkirkan bahan buangan dan toksik daripada badan  
 Ya  Tidak  Tidak Pasti

c) Untuk mencairkan darah  
 Ya  Tidak  Tidak Pasti

d) Untuk meningkatkan tekanan darah  
 Ya  Tidak  Tidak Pasti

2. Apakah cara terbaik pengambilan zat besi?

a) Ambil semasa perut kosong (setengah jam sebelum atau 2 jam selepas makan)  
 Ya  Tidak  Tidak Pasti

b) Ambil selepas makan, jika saya ada gastrik/sakit perut  
 Ya  Tidak  Tidak Pasti

c) Ambil bersama makanan  
 Ya  Tidak  Tidak Pasti

d) Jarakkan 1-2 jam daripada pengambilan calcium carbonate  
 Ya  Tidak  Tidak Pasti

3. Apakah cara terbaik pengambilan calcium carbonate?

a) Telan setengah jam selepas makan  
 Ya  Tidak  Tidak Pasti

b) Kunyah atau tabur di atas makanan  
 Ya  Tidak  Tidak Pasti

c) Boleh diambil sebelum atau selepas makan  
 Ya  Tidak  Tidak Pasti

4. Apakah fungsi calcium carbonate?

a) Sebagai suplemen calcium  
 Ya  Tidak  Tidak Pasti

b) Sebagai suplemen zat besi  
 Ya  Tidak  Tidak Pasti

c) Untuk mengawal paras potassium  
 Ya  Tidak  Tidak Pasti

5. Apa yang akan anda lakukan sekiranya anda TERLUPA untuk mengambil ubat anda?

a) Mengambilnya sebaik sahaja teringat. Tetapi, jika masanya lebih hampir dengan masa dos seterusnya, saya akan tinggalkan dos tersebut dan ambil ubat pada dos seterusnya.  
 Ya  Tidak  Tidak Pasti

b) Membiarkan sahaja dan mengambilnya pada waktu dos seterusnya.  
 Ya  Tidak  Tidak Pasti

c) Menggandakan dos  
 Ya  Tidak  Tidak Pasti

SCORE:

Figure 3.2.3.3-2 Specific Details - Dialysis

#### STEP 4

Answer the questions for *Drug Knowledge Assessment Form* by checking the radio button for below:

1. Why do I have to do dialysis?
2. What is (are) the appropriate way(s) to take iron tablet?
3. What is (are) the appropriate way(s) to take calcium carbonate?
4. What is (are) function(s) of calcium carbonate?
5. What do you usually do when you missed a dose(s)?

#### Note

- The questions are not mandatory to be answered.
- Click on the  button to view the questions in Malay language
- Score will be automatically calculated and automatically displayed

#### STEP 5

Click on the  button to save the answered questions(s)

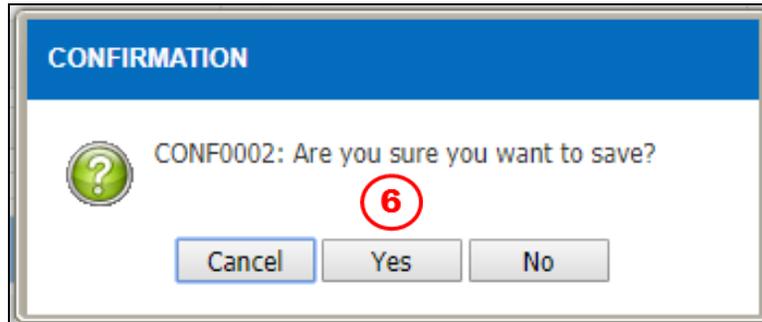


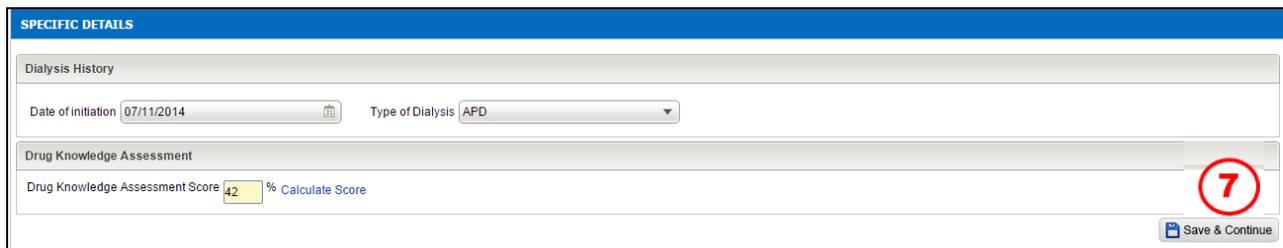
Figure 3.2.3.3-3 Confirmation Alert Message

### STEP 6

Click on the  button to confirm save record

### STEP 7

Click on the  button as shown in Figure 3.2.3.3-1 to save and continue with reporting section



### STEP 8

Click on the  button to confirm save record

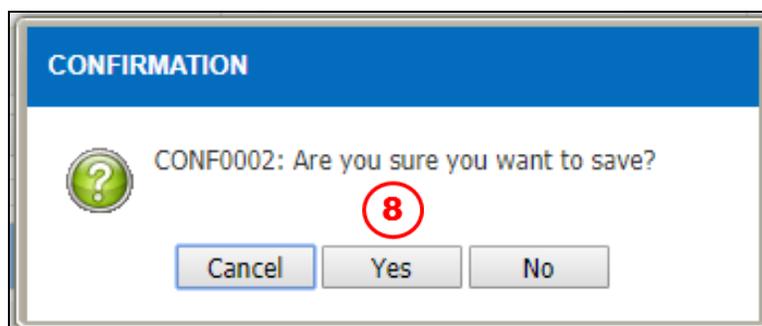


Figure 3.2.3.3-4 Confirmation Alert Message

## STEP 9

Click on the  button to confirm record

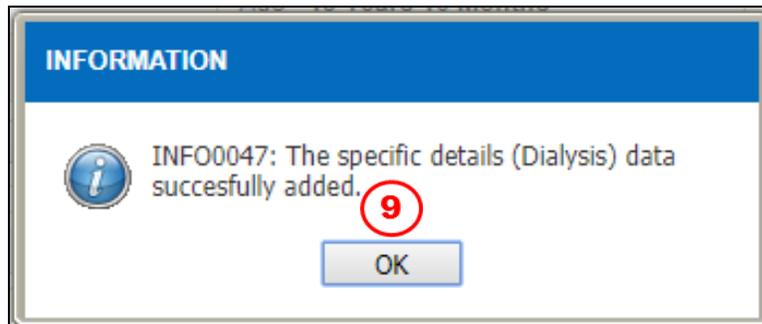


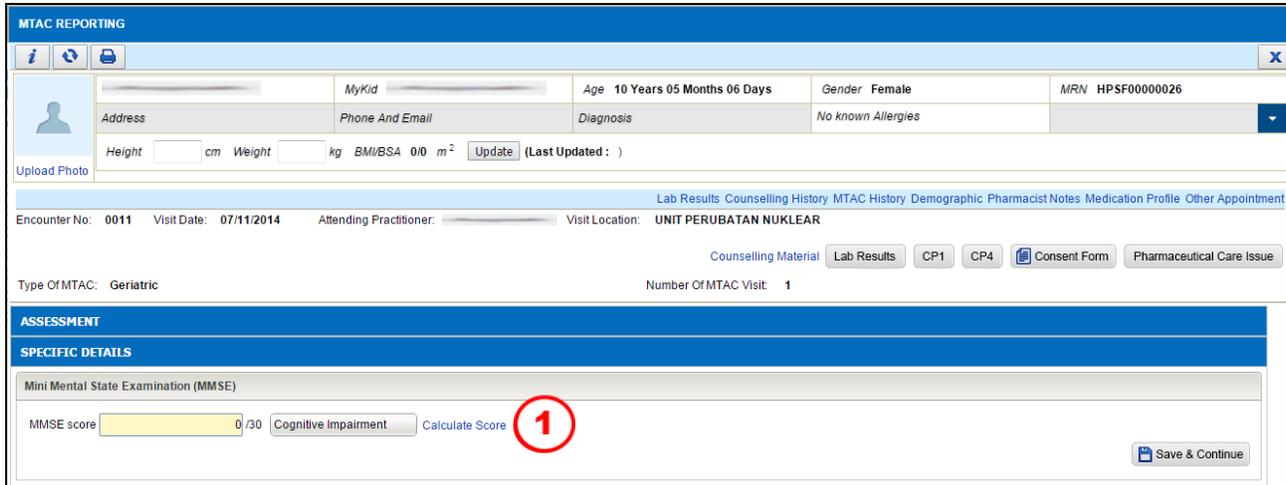
Figure 3.2.3.3-5 Information alert message

### **Note**

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

### 3.2.3.4 Geriatric

This function allows users to record Specific Details for Geriatric for MTAC patients



The screenshot displays the 'MTAC REPORTING' interface. At the top, there are navigation icons and a close button. Below this is a patient information section with fields for MyKid, Age (10 Years 05 Months 06 Days), Gender (Female), and MRN (HPSF0000026). There are also fields for Address, Phone And Email, Diagnosis, and No known Allergies. A section for physical attributes includes Height (cm), Weight (kg), and BMI/BSA (0/0 m<sup>2</sup>), with an 'Update' button and '(Last Updated : )' text. Below this is a 'Lab Results' section with a 'Counselling Material' dropdown and buttons for 'Lab Results', 'CP1', 'CP4', 'Consent Form', and 'Pharmaceutical Care Issue'. The 'Type Of MTAC' is set to 'Geriatric' and 'Number Of MTAC Visit' is 1. The 'ASSESSMENT' section is expanded to show 'SPECIFIC DETAILS' for 'Mini Mental State Examination (MMSE)'. It includes an 'MMSE score' field with '0/30', a 'Cognitive Impairment' button, and a 'Calculate Score' link circled in red with the number 1. A 'Save & Continue' button is at the bottom right.

Figure 3.2.3.4-1 Specific Details - Geriatric

#### Note

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Geriatric.

#### STEP 1

Click on the [Calculate Score](#) hyperlink for **MMSE Score** and 'Mini Mental State Examination (MMSE) – Orientasi Masa' window will be displayed as shown in Figure 3.2.3.4-2

#### STEP 2

Answer questions in **Mini Mental State Examination (MMSE)** by selecting radio button as shown in Figure 3.2.3.4-2

#### Note

- The questions are not mandatory to be answered.
- Score will be automatically calculated and automatically displayed.

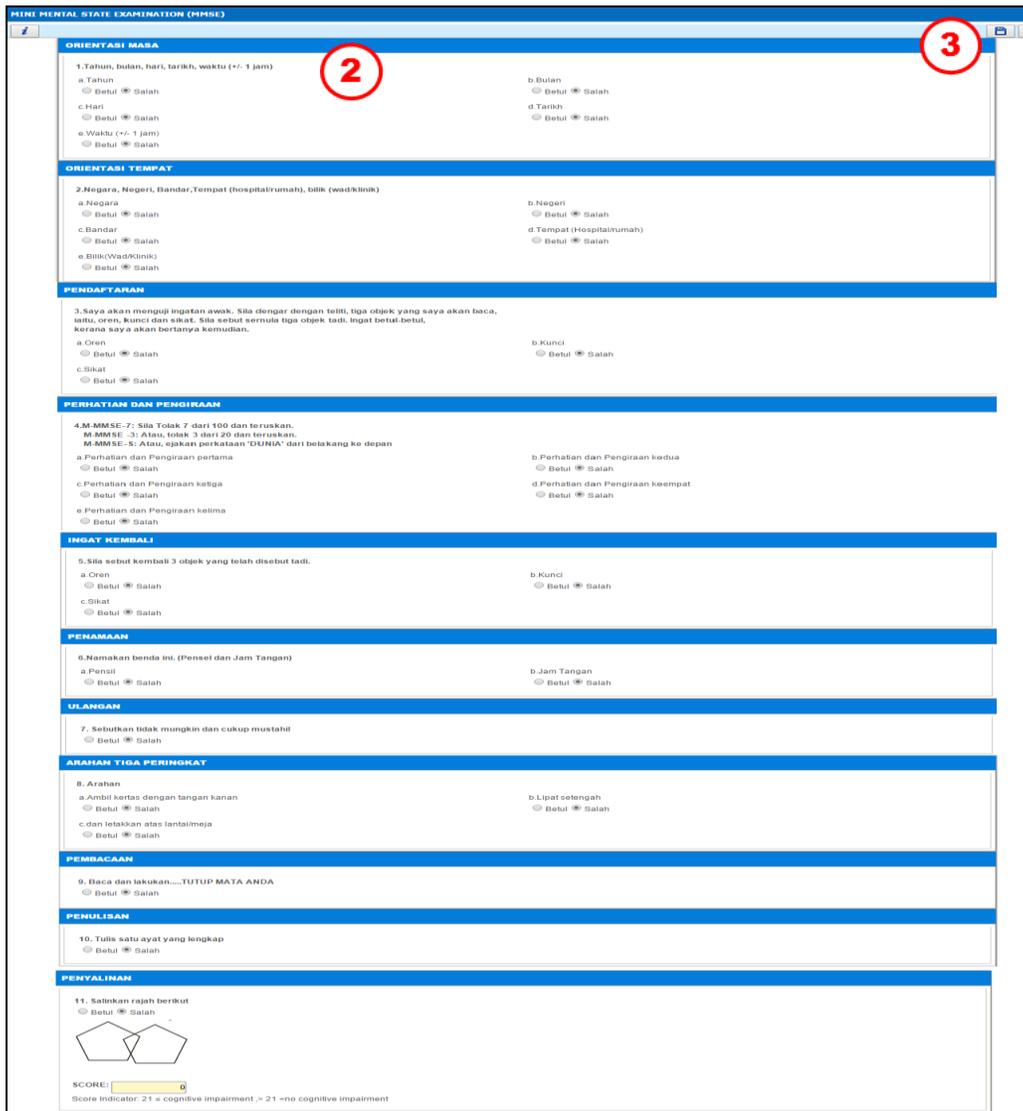


Figure 3.2.3.4-2 Mini Mental State Examination (MMSE)

**STEP 3**

Click on the  button to save the answered questions(s)

**STEP 4**

Click on the  button to confirm save record

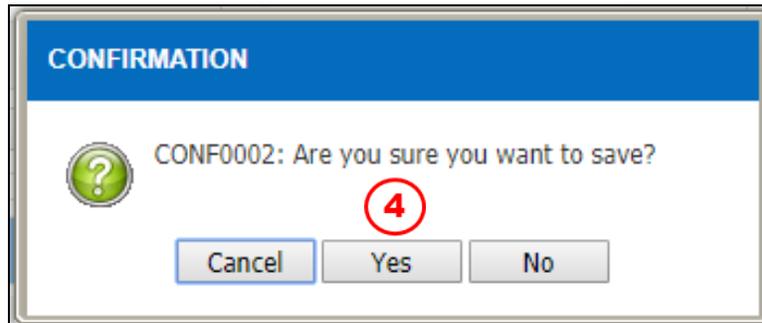
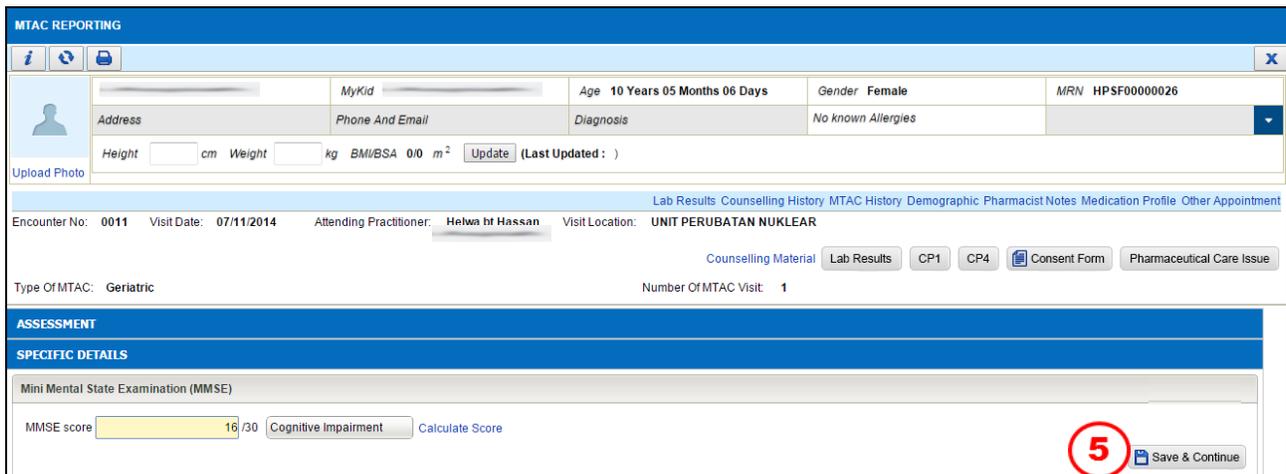


Figure 3.2.3.4-3 Confirmation Alert Message

### STEP 5

Click on the  button as shown in Figure 3.2.3.4-1 to save and continue with reporting section



A screenshot of the "MTAC REPORTING" form. The form includes fields for patient information (MyKid, Age, Gender, MRN), address, phone, email, diagnosis, and allergies. It also shows visit details (Encounter No: 0011, Visit Date: 07/11/2014, Attending Practitioner: Helwa bt Hassan, Visit Location: UNIT PERUBATAN NUKLEAR) and assessment options (Counselling Material, Lab Results, CP1, CP4, Consent Form, Pharmaceutical Care Issue). The "Type Of MTAC" is set to "Geriatric" and "Number Of MTAC Visit" is 1. The "ASSESSMENT" section is expanded to "SPECIFIC DETAILS", showing a "Mini Mental State Examination (MMSE)" with a score of 16/30 and a "Cognitive Impairment" button. A "Save & Continue" button is visible in the bottom right corner, circled with a red "5".

Figure 3.2.3.4-4 Specific Details - Geriatric

### STEP 6

Click on the  button to confirm save record

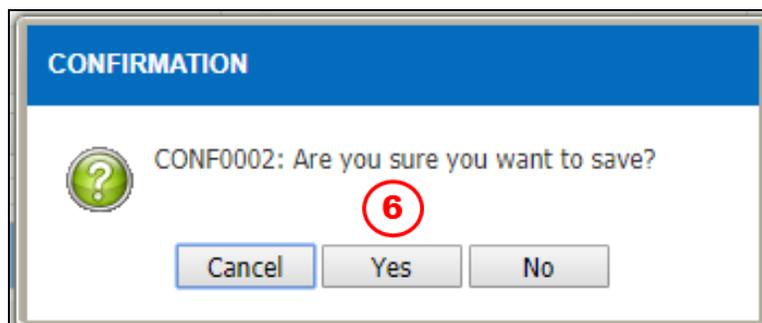


Figure 3.2.3.4-5 Confirmation Alert Message

### STEP 7

Click on the  button to confirm record

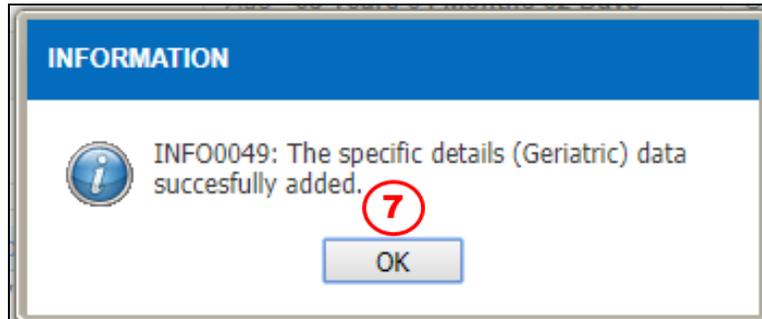


Figure 3.2.3.4-6 Information alert message

### **Note**

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

### 3.2.3.5 Heart Failure

This function allow user to record Specific Details for Heart Failure for MTAC patient.

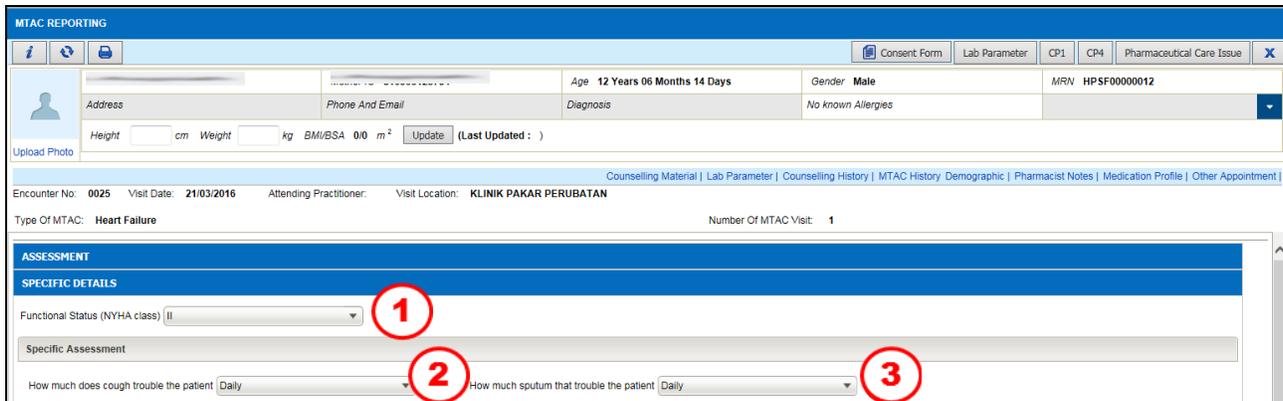


Figure 3.2.3.5 Specific Details - Heart Failure

#### Note

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Heart Failure

#### **STEP 1**

Select **Functional Status (NYHA class)** from the drop down box

- I
- II
- III
- IV

#### Specific Assessment

#### **STEP 2**

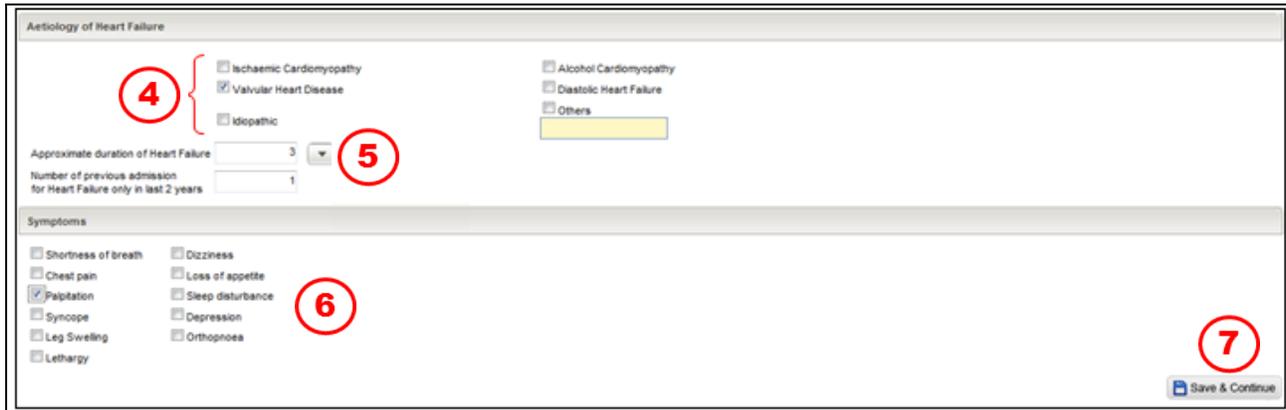
Select **How much does cough trouble the patient** from the drop down box

- Not Present
- Few Days/Month
- Few Days/Week
- Daily

#### **STEP 3**

Select **How much sputum that trouble the patient** from the drop down box

- Not Present
- Few Days/Month
- Few Days/Week
- Daily



The screenshot shows a form titled 'Aetiology of Heart Failure'. It contains several sections: 'Aetiology of Heart Failure' with checkboxes for Ischaemic Cardiomyopathy, Valvular Heart Disease, Idiopathic, Alcohol Cardiomyopathy, Diastolic Heart Failure, and Others; 'Approximate duration of Heart Failure' with a dropdown menu; 'Number of previous admission for Heart Failure only in last 2 years' with a text input; 'Symptoms' with checkboxes for Shortness of breath, Chest pain, Palpitation, Syncope, Leg Swelling, Lethargy, Dizziness, Loss of appetite, Sleep disturbance, Depression, and Orthopnoea; and a 'Save & Continue' button. Red circles with numbers 4 through 7 highlight specific elements: 4 points to the 'Aetiology' checkboxes, 5 to the duration dropdown, 6 to the 'Symptoms' checkboxes, and 7 to the 'Save & Continue' button.

Figure 3.2.3.5-2 Specific details - Heart Failure

#### STEP 4

Select the check box for **Aetiology of Heart Failure** as below:

- Ischaemic Cardiomyopathy
- Valvular Heart Disease
- Idiopathic
- Alcohol Cardiomyopathy
- Diastolic Hear Failure
- Others

#### Note

Blank fields will be enabled only if user selects 'Others' from the check box

#### STEP 5

Enter **Approximate duration of Heart Failure** and select from the drop down box

- Months
- Years

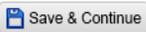
#### STEP 6

Select the check box for **Symptoms** as below:

- Shortness of breath
- Chest pain
- Palpitation
- Syncope
- Leg Swelling
- Lethargy
- Dizziness
- Loss of appetite

- Sleep disturbance
- Depression
- Orthopnea

#### STEP 7

Click on the  button as shown in Figure 3.2.3.5-1 to save and continue with reporting section

#### STEP 8

Click on the  button to confirm save record

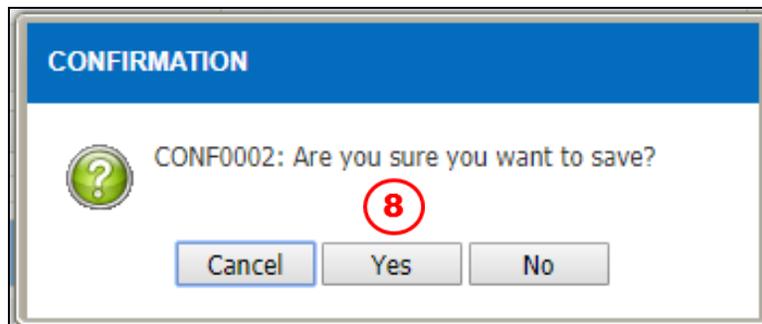


Figure 3.2.3.5-3 Confirmation Alert Message

#### STEP 9

Click on the  button to confirm record

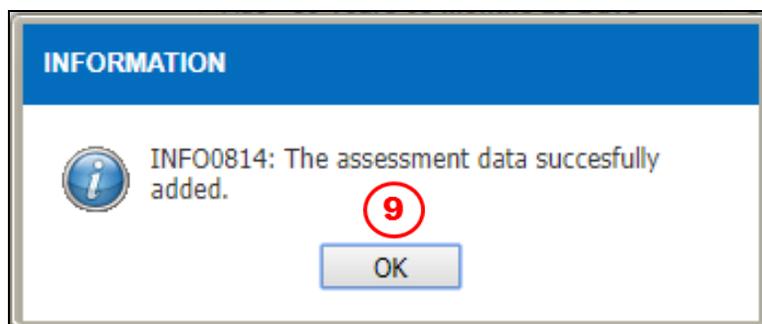


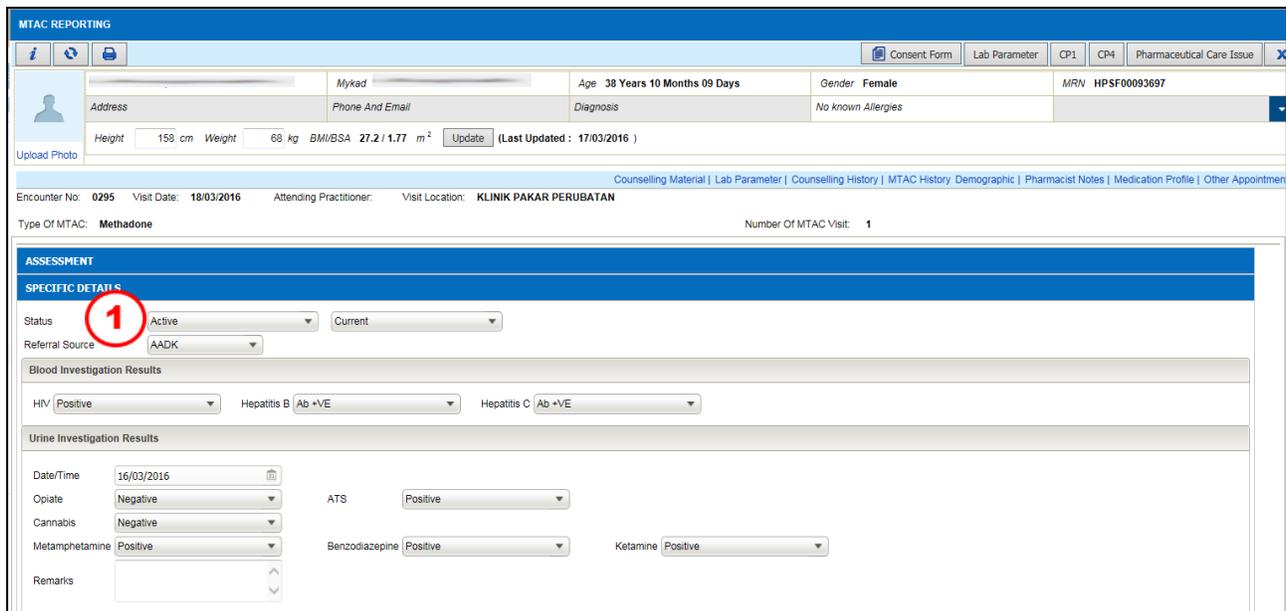
Figure 3.2.3.5-4 Information Alert Message

#### **Note**

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details

### 3.2.3.6 Methadone

This function allow user to record Specific Details for Methadone for MTAC patient



The screenshot displays the 'MTAC REPORTING' interface. At the top, there are navigation tabs for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this, patient information is shown, including 'Mykad', 'Age 38 Years 10 Months 09 Days', 'Gender Female', and 'MRN HPSF00093697'. The 'SPECIFIC DETAILS' section is highlighted in blue and contains the following fields:

- Status:** A dropdown menu with 'Active' selected, circled in red with the number '1'. Other options include 'Current'.
- Referral Source:** A dropdown menu with 'AADK' selected.
- Blood Investigation Results:** Three dropdown menus for 'HIV' (Positive), 'Hepatitis B (Ab +VE)', and 'Hepatitis C (Ab +VE)'.
- Urine Investigation Results:** A date/time field set to '16/03/2016' and several dropdown menus for 'Opiate' (Negative), 'Cannabis' (Negative), 'Metamphetamine' (Positive), 'ATS' (Positive), 'Benzodiazepine' (Positive), and 'Ketamine' (Positive).
- Remarks:** A text area for additional notes.

Figure 3.2.3.6-1 Specific Details - Methadone

#### **Note**

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Methadone.

#### **STEP 1**

Select **Status** from the drop down box

- Active
- Inactive
- Current
- Re-entry
- Transfer

Select **Referral Source** from the drop down box

- AADK
- NGO
- NSEP
- Others
- Walk In

### Note

Blank field will be enabled if user select **Other** from the **Referral Source** drop down box.

### Blood Investigation Results

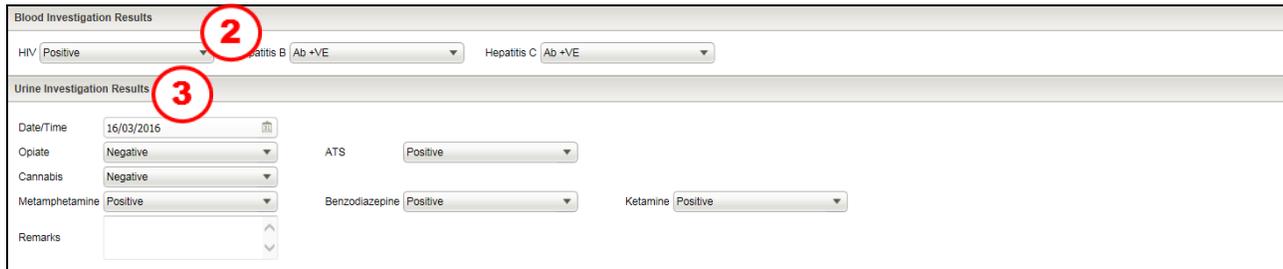


Figure 3.2.3.6-2 Specific Details – Methadone

### STEP 2

Select **HIV** from the drop down box

- Negative
- Positive
- Unknown

Select **Hepatitis B** from the drop down box:

- Ab +VE
- Ab –VE
- Ag +VE
- Non-Reactive
- Unknown

Select **Hepatitis C** from the drop down box:

- Ab +VE
- Ab –VE
- Non-Reactive
- Unknown

### Urine Investigation Results

### STEP 3

Click on the  button to select *sample Date/Time*.

Select **Opiate**, **ATS**, **Cannabis**, **Methamphetamine**, **Benzodiazepine**, and **Ketamine** from the drop down box

- Negative
- Positive

**Note**

Enter **Remarks** if necessary

**Dispensing Assessment First Week of Treatment**

MTAC REPORTING

Consent Form | Lab Parameter | CP1 | CP4 | Pharmaceutical Care Issue

Mykad: [redacted] Age: 38 Years 10 Months 09 Days Gender: Female MRN: HPSF00093697

Address: [redacted] Phone And Email: [redacted] Diagnosis: [redacted] No known Allergies

Height: 158 cm Weight: 68 kg BMI/BSA: 27.2 / 1.77 m<sup>2</sup> Update (Last Updated: 17/03/2016)

Encounter No: 0295 Visit Date: 18/03/2016 Attending Practitioner: [redacted] Visit Location: KLINIK PAKAR PERUBATAN

Type Of MTAC: Methadone Number Of MTAC Visit: 1

Dispensing Assessment First Week of treatment

Day: 2 Date: 21/03/2016

Gait: Normal Speech: Normal Consciousness: Drowsy (4)

Abuse Drug used: [redacted]

Drug\* (5) Amount (6) Last Taken Change Mode Of Administration (7) Add/Update (8)

Drug	Mode Of Administration	Amount	When
Alcohol	Oral		more than 8 hours

**Figure 3.2.3.6-3 Specific Details – Methadone**

**STEP 4**

Select **Day** from the drop down box and click on the button to select date

Select **Gait** from the drop down box

- Impaired
- Normal

Select **Speech** from the drop down box

- Normal
- Pressured
- Slurred

Select **Consciousness** from the drop down box

- Agitated
- Alert
- Drowsy

**Abuse Drug used**

**STEP 5**

Select **Drug** from the drop down box

- ATS
- Alcohol
- Benzodiazepine
- Cannabis
- Mitragynine (Air Ketum)
- Opiate
- Others

**Note**

Enter **Amount** of drug

**STEP 6**

Select **Last Taken Change** from the drop down box

- Past 1 hour
- Past 2 hours
- Past 3 hours
- Past 4 hours
- Past 5 hours
- Past 6 hours
- Past 7 hours
- Past 8 hours
- More than 8 hours

**STEP 7**

Select **Mode of Administration** from the drop down button

- Oral
- Others (please specify)
- Inhale/Snort/Smoke
- Injection

## STEP 8

Click on the  button to add drug information on the list.

<b>Evidence of withdrawal</b> <b>9</b> <input checked="" type="checkbox"/> Runny nose <input type="checkbox"/> Dilated pupils <input checked="" type="checkbox"/> Nausea <input type="checkbox"/> Vomiting <input type="checkbox"/> Diarrhoea <input type="checkbox"/> Cramps <input type="checkbox"/> Others (can be list more than one)	<b>Evidence of intoxication</b> <b>10</b> <input type="checkbox"/> Pin point pupils <input checked="" type="checkbox"/> Heavy eyelids <input type="checkbox"/> Glassy or red eyes <input type="checkbox"/> Smell alcohol <input type="checkbox"/> Unsteady movements <input type="checkbox"/> Others (can be list more than one)	<b>Pharmacist remarks on current dose</b> <b>11</b> Too High <input type="text"/>
--	--	--

Figure 3.2.3.6-4 Specific Details – Methadone

## STEP 9

Select **Evidence of withdrawal** from the drop down box

- Runny nose
- Dilated pupils
- Nausea and/or vomiting
- Diarrhoea
- Cramps
- Others

## STEP 10

Select **Evidence of intoxication** from the drop down box

- Pin point pupils
- Heavy eyelids
- Glassy or red eyes
- Smell alcohol
- Unsteady movements
- Others

### Note

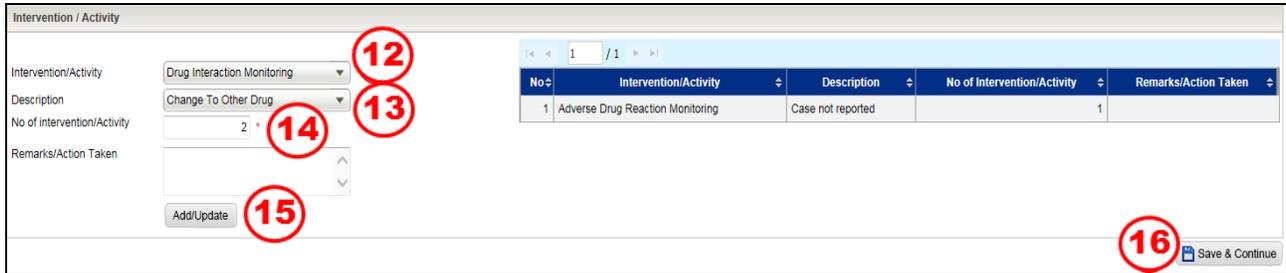
*Blank fields will be enabled if user selects 'Other' from the drop down box of Evidence of withdrawal and Evidence of intoxication.*

## STEP 11

Select **Pharmacist remarks on current dose** from the drop down box

- Sufficient
- Too High
- Too Low

## Intervention / Activity



No	Intervention/Activity	Description	No of Intervention/Activity	Remarks/Action Taken
1	Adverse Drug Reaction Monitoring	Case not reported	1	

Figure 3.2.3.6-5 Specific Details – Methadone

### STEP 12

Select **Intervention / Activity** from the drop down box

- Adverse Drug Reaction Monitoring
- Drug Information
- Drug Interaction Monitoring
- Methadone Dose Modification
- Type of side affect

### STEP 13

Select **Description** from the drop down box

### STEP 14

Enter **No of Intervention/Activity**

### Note

Description will be according to the Intervention/Activity selected from the drop down box

### STEP 15

Click on the  button to add drug information on the list

### STEP 16

Click on the  button to save and continue with reporting record

### STEP 17

Click on the  button to confirm save order

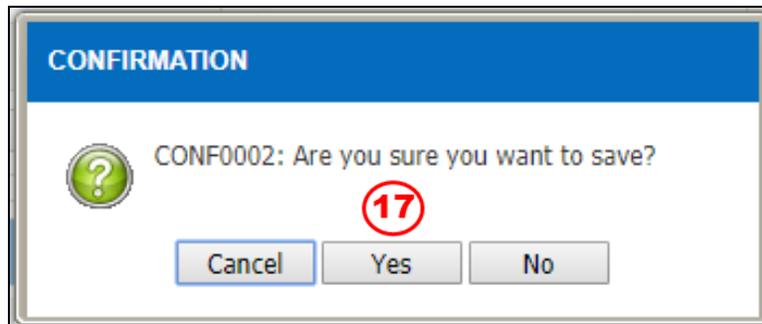


Figure 3.2.3.6-6 Confirmation Alert Message

### STEP 18

Click on the  button to add record

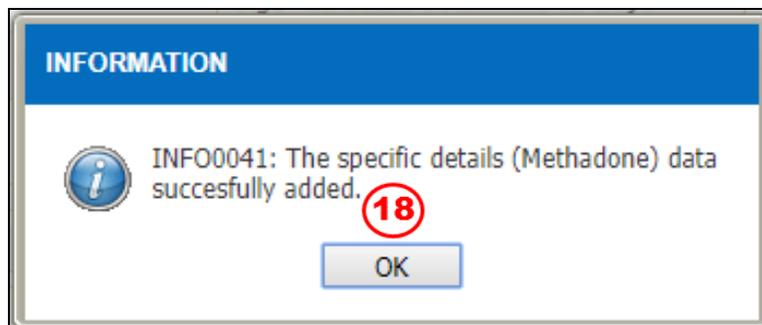


Figure 3.2.3.6-7 Information Alert Message

### Note

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

### 3.2.3.7 Renal Transplant

This function allow user to record Specific Details for Renal Transplant for MTAC patient.

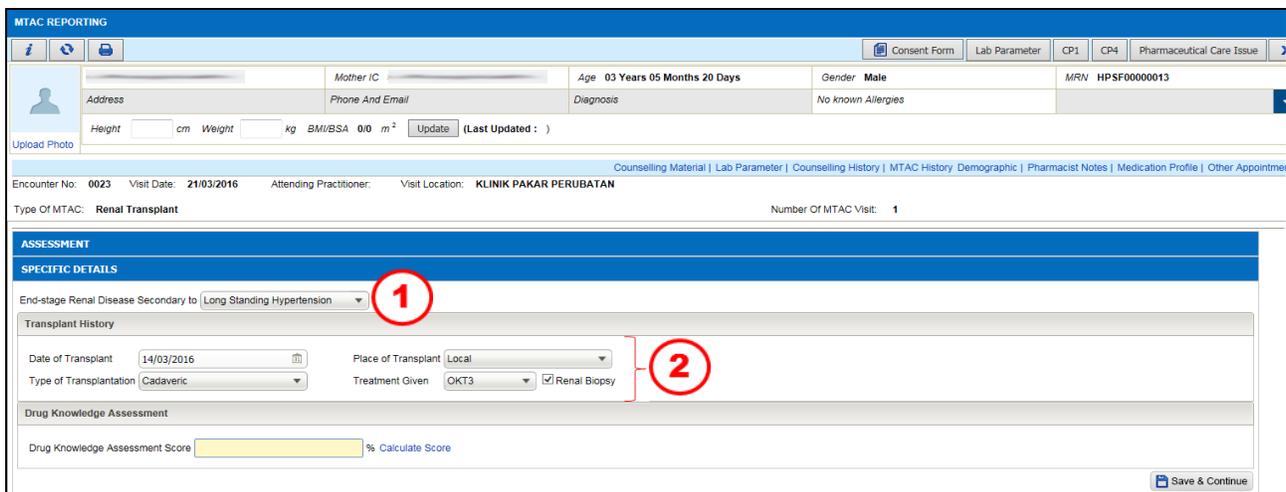


Figure 3.2.3.7-1 Specific Details - Renal Transplant

#### Note

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Renal Transplant.

#### STEP 1

Select **End-stage Renal Disease Secondary to** from the drop down box

- Long Standing Hypertension
- Diabetic Nephropathy
- Lupus Nephritis
- Unknown

#### Transplant History

#### STEP 2

Click on the  button to select **Date of Transplant**

Select **Type of Transplantation** from the drop down box

- Cadaveric
- Living Non Related
- Living Related

Select **Place of Transplant** from the drop down box

- Local
- Overseas

Select **Treatment Given** from the drop down box

- Simulect
- OKT3
- Anti-Thymocyte

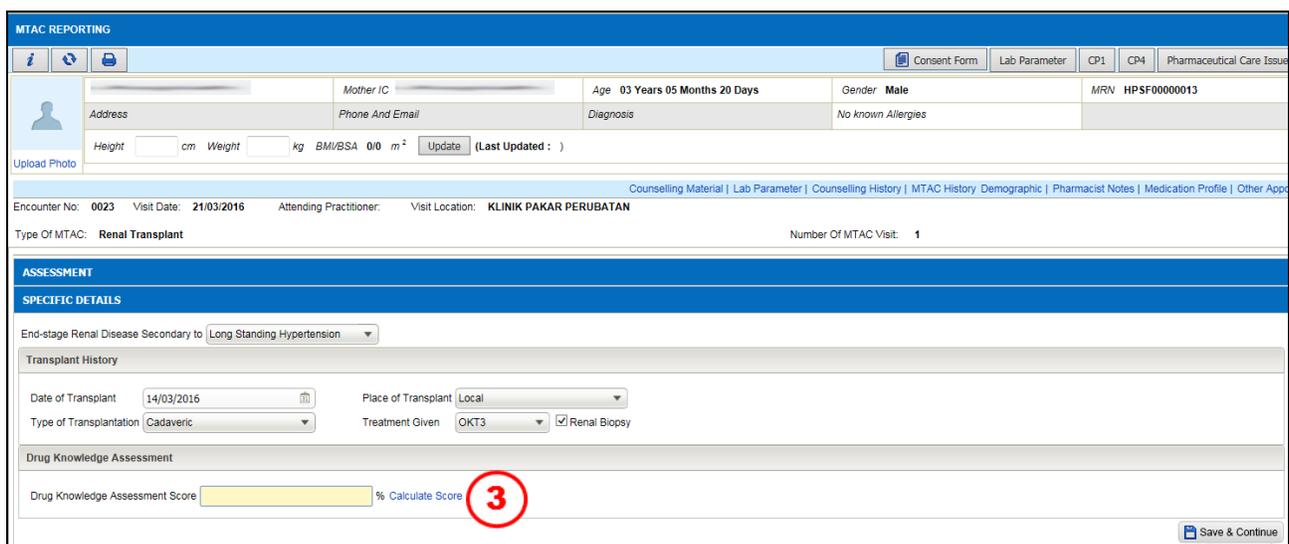
**Note**

User can check on the **Renal Biopsy** check box.

**Drug Knowledge Assessment**

**STEP 3**

Click on the [Calculate Score](#) hyperlink for **Drug Knowledge Assessment Score** and the 'Review of Patient's Understanding (Medication) DFIT' window will be displayed as shown in Figure 3.2.3.7-2



The screenshot shows the 'MTAC REPORTING' interface. At the top, there are navigation buttons for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this is a patient information section with fields for 'Address', 'Phone And Email', 'Age' (03 Years 05 Months 20 Days), 'Gender' (Male), and 'MRN' (HPSF00000013). There are also fields for 'Height', 'Weight', and 'BMI/BSA' (0/0 m<sup>2</sup>) with an 'Update' button. A 'Counselling Material | Lab Parameter | Counselling History | MTAC History | Demographic | Pharmacist Notes | Medication Profile | Other App' menu is visible. The 'Encounter No' is 0023, 'Visit Date' is 21/03/2016, and 'Visit Location' is 'KLINIK PAKAR PERUBATAN'. The 'Type Of MTAC' is 'Renal Transplant' and 'Number Of MTAC Visit' is 1. The 'ASSESSMENT' section is expanded to show 'SPECIFIC DETAILS'. Under 'Transplant History', 'Date of Transplant' is 14/03/2016, 'Place of Transplant' is Local, 'Type of Transplantation' is Cadaveric, and 'Treatment Given' is OKT3. A 'Renal Biopsy' checkbox is checked. The 'Drug Knowledge Assessment' section has a 'Drug Knowledge Assessment Score' field and a 'Calculate Score' button, which is circled in red with the number 3. A 'Save & Continue' button is at the bottom right.

Figure 3.2.3.7-2 Specific Details - Renal Transplant

**STEP 4**

Answer all questionnaire in the **Review of Patient's Understanding** window by selecting the radio button to answer every questions

**Note**

- Click on the  button to view in Malay language.
- Score will be automatically calculated and automatically displayed

**STEP 5**

Click on the  button to save record

**REVIEW OF PATIENT'S UNDERSTANDING (MEDICATION) DFIT**

*i* Malay [Print] [Close]

1. What does immunosuppressant medicines means?

a) Medicines that lowers the body immune system  
 Yes  No  Not Sure

b) Medicines that prevent rejection of the transplanted organ  
 Yes  No  Not Sure

c) Medicines that promotes graft cell production  
 Yes  No  Not Sure

2. Why do you have to take immunosuppressant?

a) To protect myself from infections  
 Yes  No  Not Sure

b) To prevent rejection of my newly transplanted organ  
 Yes  No  Not Sure

c) To prolong the life of my newly transplanted organ  
 Yes  No  Not Sure

3. How do I take immunosuppressant?

a) After meal  
 Yes  No  Not Sure

b) Before meal  
 Yes  No  Not Sure

c) Chew/Swallow with food  
 Yes  No  Not Sure

4. What is the correct way to keep your immunosuppressant?

a) Keep in fridge  
 Yes  No  Not Sure

b) Keep in a car for a long time  
 Yes  No  Not Sure

c) Keep in an airtight container, at a dry place away from direct sunlight  
 Yes  No  Not Sure

5. Why do you have to do regular blood tests while on immunosuppressant treatment?

a) To check the presence of infections  
 Yes  No  Not Sure

b) To check the function of the transplanted organ  
 Yes  No  Not Sure

c) To check the concentration of immunosuppressant in the blood  
 Yes  No  Not Sure

6. What do you usually do when you MISSED a dose(s) of your immunosuppressant?

a) I will take it as soon as I remember. But, if its time for the next dose, I will omit the missed dose and continue with next scheduled dose  
 Yes  No  Not Sure

b) Leave it out and continue with the next scheduled dose  
 Yes  No  Not Sure

c) Accumulate the missed dose together with the next dose  
 Yes  No  Not Sure

7. What to do if you have any side effects while taking immunosuppressant?

a) Stop taking without notify the doctor/pharmacist  
 Yes  No  Not Sure

b) Stop take it and consult doctor immediately  
 Yes  No  Not Sure

c) Take another medication to resolve it without notify the doctor/pharmacist  
 Yes  No  Not Sure

8. What to do if you want to take supplement and traditional medication while taking immunosuppressant?

a) Notify doctor/pharmacist before taking it  
 Yes  No  Not Sure

b) Take it together with immunosuppressant without notify doctor /pharmacist  
 Yes  No  Not Sure

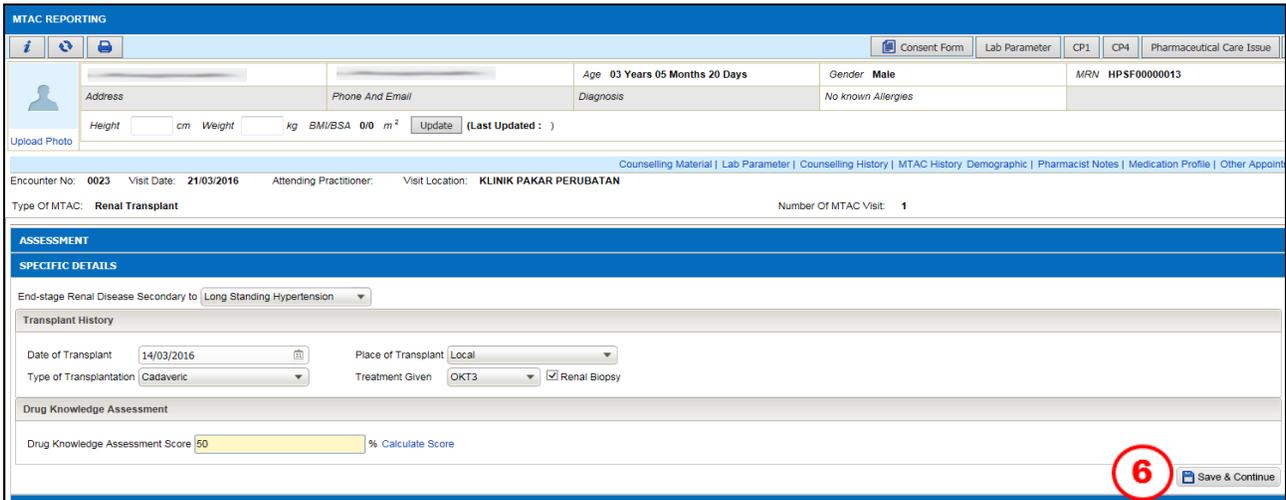
c) Take supplement and stop immunosuppressant  
 Yes  No  Not Sure

SCORE:

**Figure 3.2.3.7-3 Drug Knowledge Assessment**

**STEP 6**

Click on the  button as shown in Figure 3.2.3.7-4 to save and continue with reporting section



**MTAC REPORTING**

Consent Form | Lab Parameter | CP1 | CP4 | Pharmaceutical Care Issue

Age: 03 Years 05 Months 20 Days | Gender: Male | MRN: HPSF0000013

Address | Phone And Email | Diagnosis | No known Allergies

Height: cm | Weight: kg | BMI/BSA: 0/0 m<sup>2</sup> | Update (Last Updated: )

Encounter No: 0023 | Visit Date: 21/03/2016 | Attending Practitioner: | Visit Location: KLINIK PAKAR PERUBATAN

Type Of MTAC: Renal Transplant | Number Of MTAC Visit: 1

**ASSESSMENT**

**SPECIFIC DETAILS**

End-stage Renal Disease Secondary to: Long Standing Hypertension

Transplant History

Date of Transplant: 14/03/2016 | Place of Transplant: Local

Type of Transplantation: Cadaveric | Treatment Given: OKT3 |  Renal Biopsy

Drug Knowledge Assessment

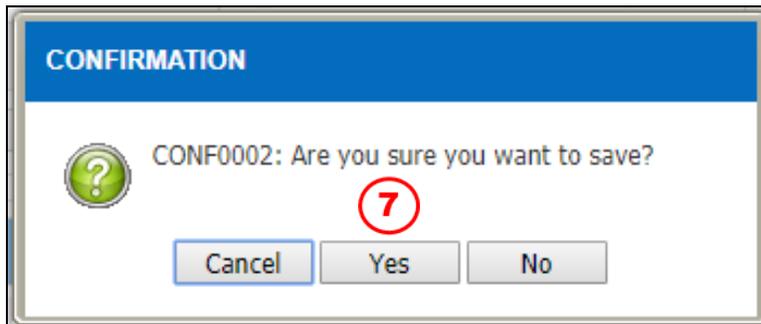
Drug Knowledge Assessment Score: 50 % Calculate Score

**6** Save & Continue

**Figure 3.2.3.7-4 Specific Details - Renal Transplant**

**STEP 7**

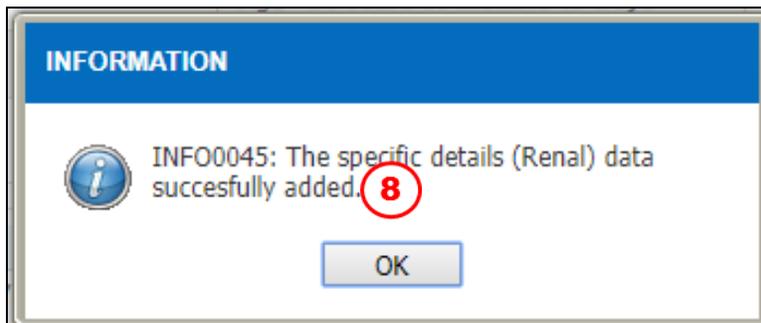
Click on the  button to confirm save record



**Figure 3.2.3.7-5 Confirmation Alert Message**

**STEP 8**

Click on the  button to confirm record



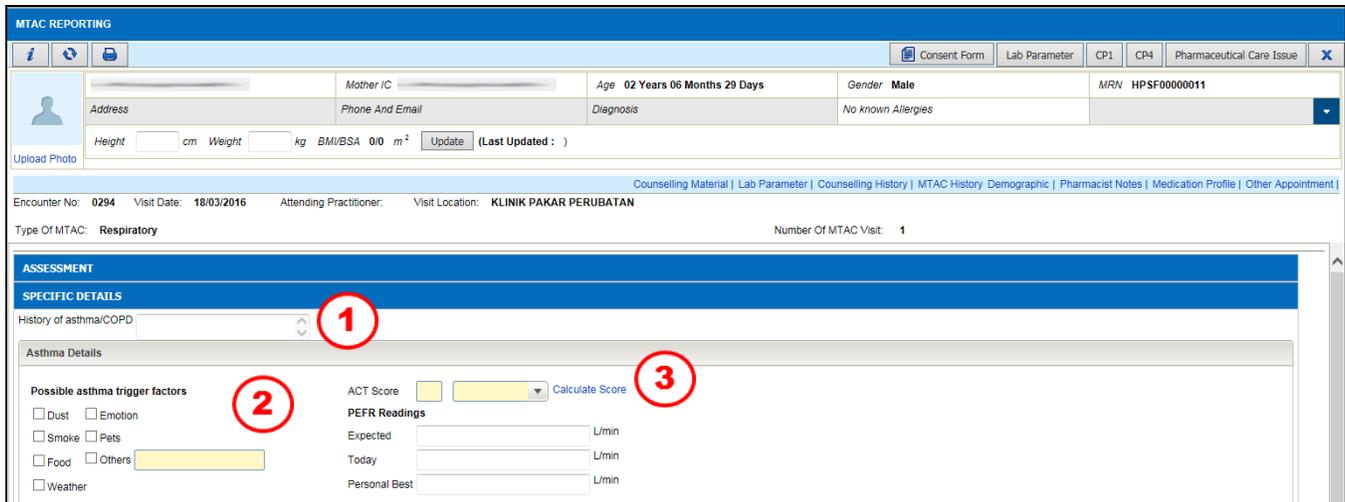
**Figure 3.2.3.7-6 Information Alert Message**

**Note**

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

### 3.2.3.8 Respiratory

This function allow user to record Specific Details for Respiratory for MTAC patient



The screenshot shows the 'MTAC REPORTING' interface. At the top, there are navigation tabs for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this is a patient information form with fields for 'Mother IC', 'Age' (02 Years 06 Months 29 Days), 'Gender' (Male), and 'MRN' (HPSF00000011). There are also fields for 'Address', 'Phone And Email', 'Diagnosis', and 'No known Allergies'. A 'Height' and 'Weight' section is present with units 'cm' and 'kg', and a 'BMI/BSA' field with units '0/0 m<sup>2</sup>'. An 'Update' button and '(Last Updated : )' text are also visible. Below the patient information, there are navigation links for 'Counselling Material', 'Lab Parameter', 'Counselling History', 'MTAC History', 'Demographic', 'Pharmacist Notes', 'Medication Profile', and 'Other Appointment'. The 'Encounter No: 0294', 'Visit Date: 18/03/2016', 'Attending Practitioner:', and 'Visit Location: KLINIK PAKAR PERUBATAN' are displayed. The 'Type Of MTAC: Respiratory' and 'Number Of MTAC Visit: 1' are also shown. The 'ASSESSMENT' section is expanded to show 'SPECIFIC DETAILS', which includes a 'History of asthma/COPD' dropdown menu (circled 1). Below this is the 'Asthma Details' section, which contains a 'Possible asthma trigger factors' checkbox group (circled 2) with options: Dust, Emotion, Smoke, Pets, Food, Others, and Weather. To the right of this group is an 'ACT Score' section with a dropdown menu and a 'Calculate Score' button (circled 3). Below the ACT Score section is a 'PEFR Readings' section with input fields for 'Expected', 'Today', and 'Personal Best', each with a unit of 'L/min'.

Figure 3.2.3.8-1 Specific Details – Asthma Details

#### Note

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Respiratory

#### STEP 1

Enter **History of asthma/COPD**

#### Asthma Details

#### STEP 2

Select **Possible asthma trigger factors** from the check box. User is allowed to select more than one (1)

- Dust
- Smoke
- Food
- Weather
- Emotion
- Pets
- Others

#### Note

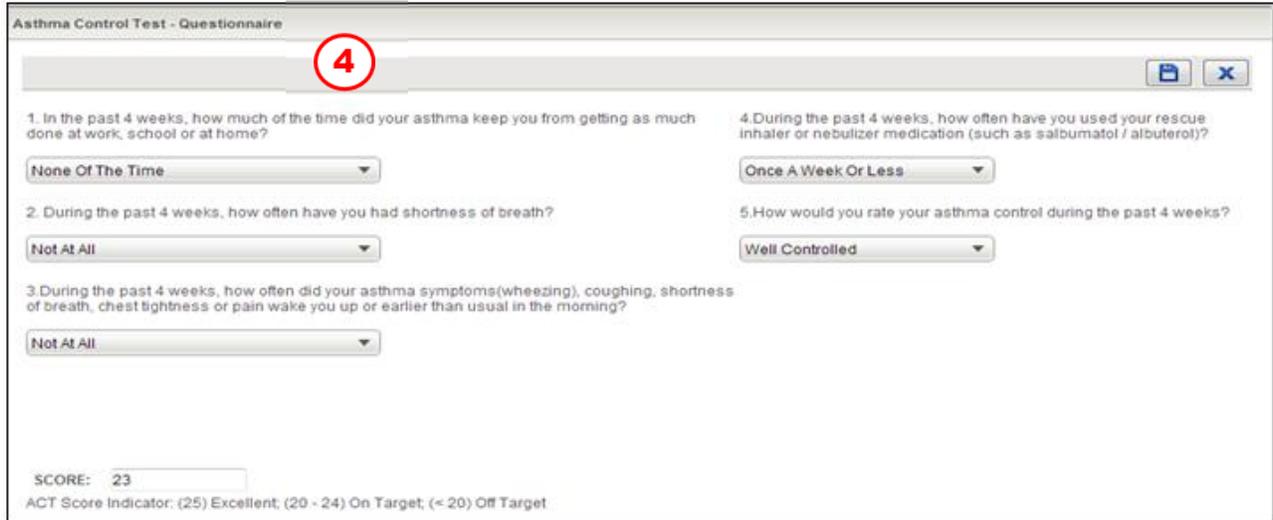
Blank field will be enabled only if user selects 'Others' from the check box.

#### STEP 3

Click on the [Calculate Score](#) hyperlink for **ACT Score** and the 'Asthma Control Test - Questionnaire' window will be displayed as shown in Figure 3.2.3.8-2

#### STEP 4

Select the drop down box to answer the questionnaire



Asthma Control Test - Questionnaire

1. In the past 4 weeks, how much of the time did your asthma keep you from getting as much done at work, school or at home?  
None Of The Time

2. During the past 4 weeks, how often have you had shortness of breath?  
Not At All

3. During the past 4 weeks, how often did your asthma symptoms(wheezing), coughing, shortness of breath, chest tightness or pain wake you up or earlier than usual in the morning?  
Not At All

4. During the past 4 weeks, how often have you used your rescue inhaler or nebulizer medication (such as salbutamol / albuterol)?  
Once A Week Or Less

5. How would you rate your asthma control during the past 4 weeks?  
Well Controlled

SCORE: 23  
ACT Score Indicator: (25) Excellent; (20 - 24) On Target; (< 20) Off Target

Figure 3.2.3.8-2 Asthma Control Test - Questionnaire

#### Note

Score will be automatically calculated and automatically displayed.

#### STEP 5

Click on the [Calculate Score](#) hyperlink and window of 'CAT Score – Questionnaire' will be display as per Figure 3.2.3.8-3



COPD Details

CAT Score

Calculate Score

Figure 3.2.3.8-3 Specific Details – COPD Details

#### STEP 6

Select **CAT Score – Questionnaire** check box and save record

Figure 3.2.3.8-4 CAT Score – Questionnaire

**STEP 7**

Click on the [Calculate Score](#) hyperlink of Before and After Counseling to do questionnaire as below:

- a) MDI Score
- b) Turbuhaler Score
- c) Accuhaler Score
- d) Handihaler Score
- e) MDI and Spacer Score

Figure 3.2.3.8-5 Inhaler Technique Understanding

**STEP 8**

Click on the button as shown in Figure 3.2.3.8-5 to save and continue with reporting section

**STEP 9**

Click on the button to confirm save order

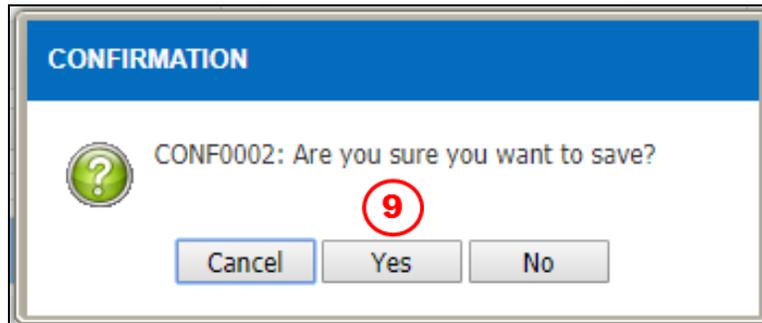


Figure 3.2.3.8-6 Confirmation Alert Message

**STEP 10**

Click on the  button to confirm record

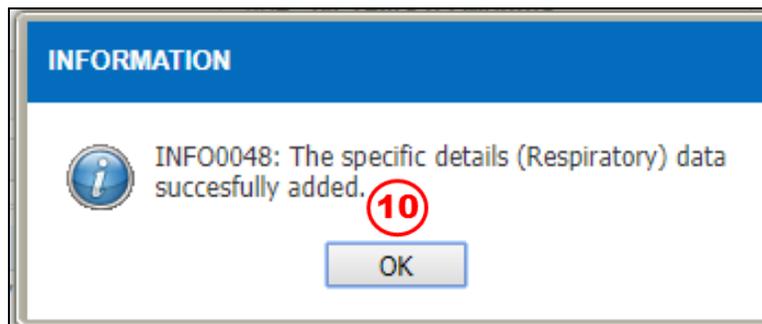


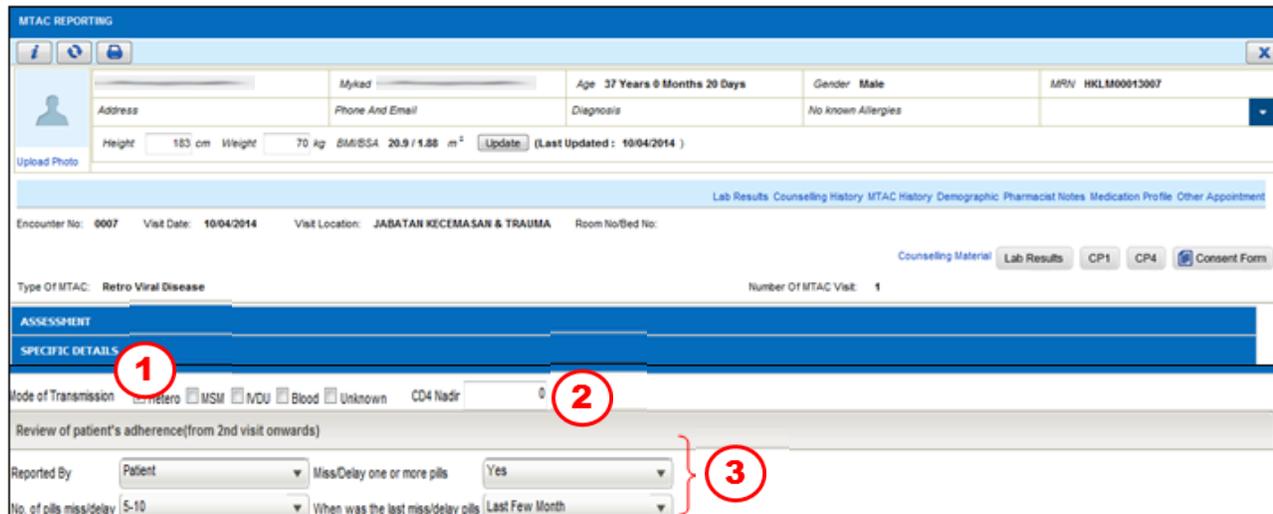
Figure 3.2.3.8-7 Information Alert Message

**Note**

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

### 3.2.3.9 Retro Viral Disease

This function allows users to record Specific Details for Retro Viral Disease for MTAC patients.



The screenshot shows the 'MTAC REPORTING' interface. At the top, there are tabs for 'Lab Results', 'Counseling History', 'MTAC History', 'Demographic', 'Pharmacist Notes', 'Medication Profile', and 'Other Appointment'. Below this, patient information is displayed: Mykad, Age (37 Years 0 Months 20 Days), Gender (Male), MPRN (HKLM00013007), Address, Phone And Email, Diagnosis, and No known Allergies. Physical attributes include Height (183 cm), Weight (70 kg), BMI/BSA (20.9 / 1.88 m<sup>2</sup>), and an 'Update' button. The 'Type Of MTAC' is 'Retro Viral Disease' and the 'Number Of MTAC Visit' is '1'. The 'ASSESSMENT' section is expanded to show 'SPECIFIC DETAILS'. In this section, 'Mode of Transmission' has radio buttons for Hetero, MSM, IVDU, Blood, and Unknown, with 'CD4 Nadir' set to 0. Below this is a section for 'Review of patient's adherence (from 2nd visit onwards)' with a 'Reported By' dropdown set to 'Patient', 'Miss/Delay one or more pills' set to 'Yes', and 'No. of pills miss/delay' set to '5-10'. A bracket groups the 'Miss/Delay one or more pills' and 'No. of pills miss/delay' fields.

Figure 3.2-3.9-1 Specific Details - Retro Viral Disease

#### Note

Repeat **Step 1 to Step 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Retro Viral Disease.

#### STEP 1

Select **Mode of Transmission** from the check box

- Hetero
- MSM
- IVDU
- Blood
- Unknown

#### STEP 2

Enter **CD4 Nadir**

**Review of patient's adherence (from 2<sup>nd</sup> visit onwards)**

#### STEP 3

Select **Reported By** from the drop down box

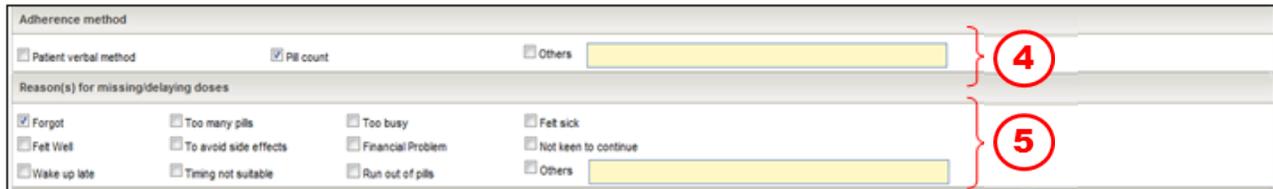
- Caregiver
- Patient

Select **Miss/Delay one or more pills** from the drop down box

- Yes
- No

**Note**

**No. of pills miss/delay and when was the last miss/delay pills** will be enabled only if user selects 'Yes' from the **Miss/Delay one or more pills** drop down box



**Figure 3.2.3.9-2 Specific Details - Retro Viral Disease**

**STEP 4**

Select **Adherence Method** from the check box

- Patient verbal method
- Pill count
- Others

**Note**

Blank field will be enabled if user selects 'Others' from the check box.

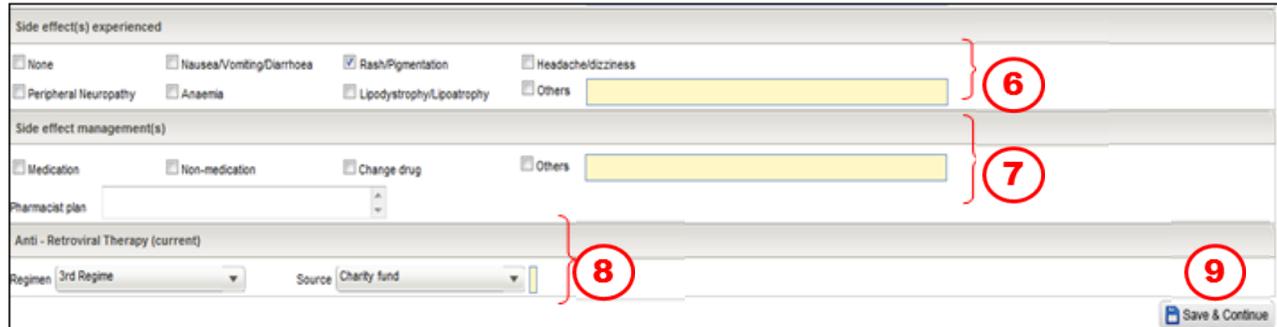
**STEP 5**

Select **Reason(s) for missing/delaying doses** from the check box

- Forgot
- Felt Well
- Wake up late
- Too many pills
- To avoid side effects
- Timing not suitable
- Too busy
- Financial Problem
- Run out of pills
- Felt sick
- Not keen to continue
- Others

**Note**

Blank field will be enabled if user selects 'Others' from the check box.



**Figure 3.2.3.9-3 Specific Details - Retro Viral Disease**

**STEP 6**

Select **Side effect(s) experienced** from the check box

- None
- Peripheral Neuropathy
- Nausea/Vomiting/Diarrhoea
- Anaemia
- Rash/Pigmentation
- Lipodystrophy/Lipoatrophy
- Headache/dizziness
- Others

**Note**

Blank field will be enabled if user selects 'Others' from the check box.

**STEP 7**

Select **Side effect management(s)** from the check box

- Medication
- Non-medication
- Change drug
- Others

**Note**

Blank field will be enabled if user selects 'Others' from the check box

Enter **Pharmacist plan** if necessary

### Anti-Retroviral Therapy (current)

#### STEP 8

Select **Regimen** from the drop down box

- 1<sup>st</sup> line
- 2<sup>nd</sup> line
- 3<sup>rd</sup> line

Select **Source** from the drop down box

- Baitulmal
- Charity fund
- Hospital
- NGO
- Others
- Self
- UNHCR

#### Note

Blank field will be enabled if user selects 'Others' from the check box.

#### STEP 9

Click on the  button as shown in Figure 3.2.3.9-3 to save and continue with reporting section

#### STEP 10

Click on the  button to confirm save record

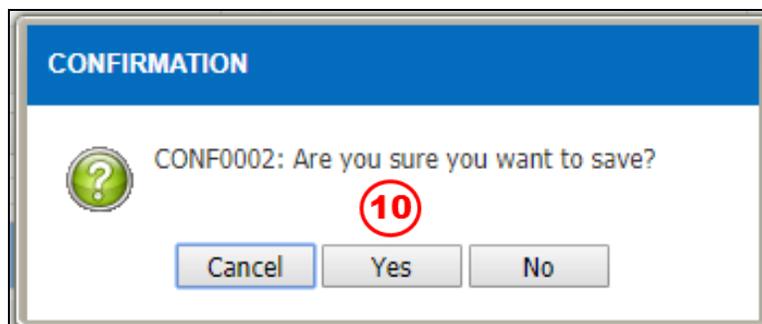


Figure 3.2.3.9-4 Confirmation Alert Message

### STEP 11

Click on the  button to confirm record

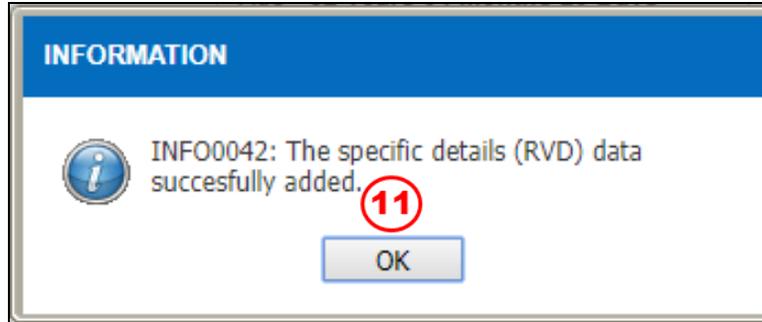


Figure 3.2.3.9-5 Information Alert Message

### **Note**

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

### 3.2.3.10 Warfarin

This function allow user to record Specific Details for Warfarin for MTAC patients.

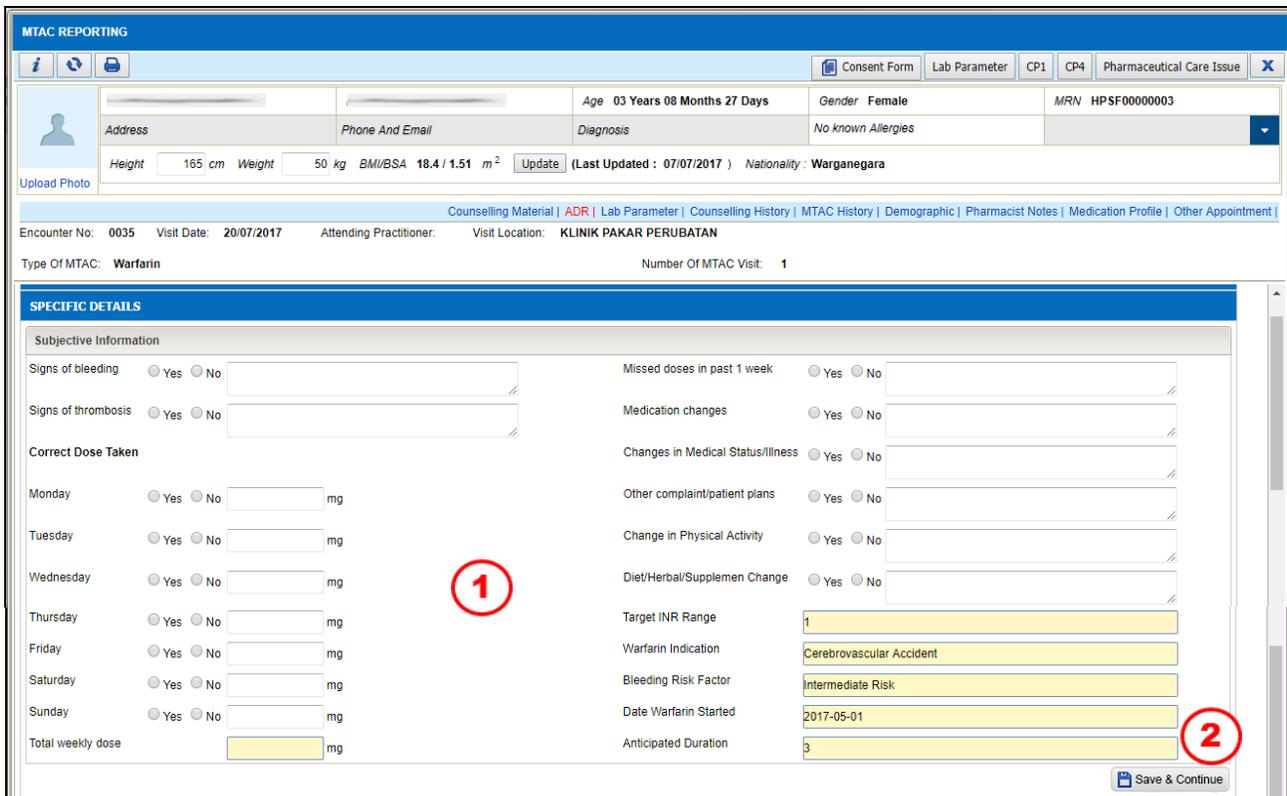


Figure 3.2.3.10-1 Specific Details - Warfarin

**Note**

Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before perform MTAC Reporting - Specific Details for Warfarin.

**STEP 1**

For **Subjective Information**, select 'Yes' or 'No' radio buttons for below:

- **Signs of bleeding**
- **Correct Dose Taken**
- **Signs of thrombosis**
- **Missed doses in past 1 week**
- **Medication changes**
- **Changes in Medical Status/illness**
- **Other complaint/patient plans**
- **Change in Physical Activity**

**Note**

- Enter remark (if available) and dosage for **Correct Dose Taken** at the blank field provided
- **Total weekly dose, Target INR Range, Warfarin Indication, Bleeding Risk Factor, Date Warfarin Started** and **Anticipated Duration** will be automatically displayed based on what user key in in MTAC order details as shown in Figure 3.2.3.10-1.

**STEP 2**

Click on the  button to save and continue with reporting section

**STEP 3**

Click on the  button to confirm save record

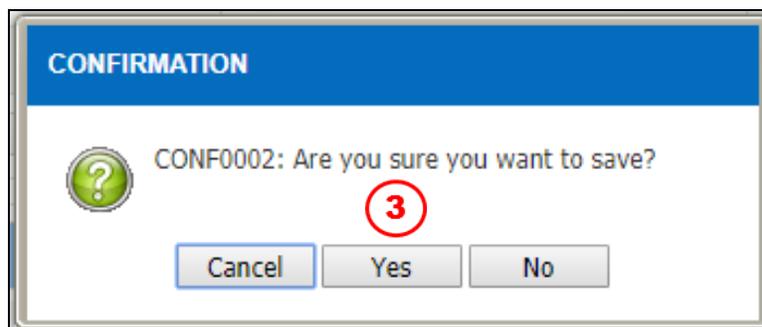
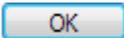


Figure 3.2.3.10-2 Confirmation Alert Message

**STEP 4**

Click on the  button to confirm record

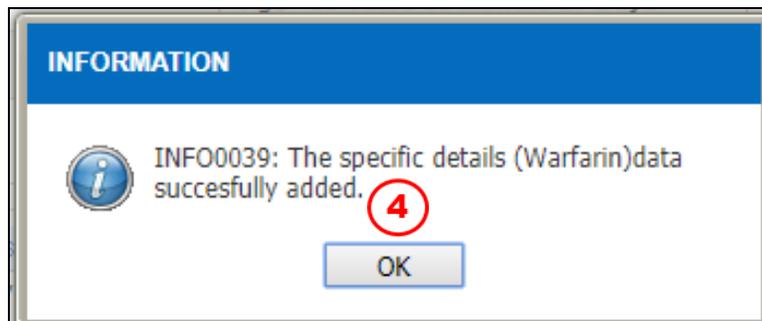


Figure 3.2.3.10-3 Information Alert Message

**Note**

For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.

## 4.0 Acronyms

Abbreviation	Definition
PhIS	Pharmacy Information System
MOH	Ministry of Health
CPS	Clinical Pharmacy System
PM	Patient Management
eGL	Electronic Guarantee Letter
HRMIS	Human Resource Management System
MRN	Medical Record Number
MTAC	Medication Therapy Adherence Clinic

## 5.0 Links to Clinical Modules

No	Module	PDF Links	No	Module	PDF Links
1	<i>Inpatient</i>	<a href="#">Click Here</a>	12	<i>CDR Dispensing</i>	<a href="#">Click Here</a>
2	<i>CDR Order</i>	<a href="#">Click Here</a>	13	<i>Methadone Dispensing</i>	<a href="#">Click Here</a>
3	<i>TDM Order</i>	<a href="#">Click Here</a>	14	<i>PN Dispensing</i>	<a href="#">Click Here</a>
4	<i>PN Order</i>	<a href="#">Click Here</a>	15	<i>Order Management</i>	<a href="#">Click Here</a>
5	<i>IV Order</i>	<a href="#">Click Here</a>	16	<i>Patient Management</i>	<a href="#">Click Here</a>
6	<i>Prepacking</i>	<a href="#">Click Here</a>	17	<i>Radiopharmaceutical</i>	<a href="#">Click Here</a>
7	<i>Galenical</i>	<a href="#">Click Here</a>	18	<i>Outpatient</i>	<a href="#">Click Here</a>
8	<i>MTAC</i>	<a href="#">Click Here</a>	19	<i>Special Drug Request</i>	<a href="#">Click Here</a>
9	<i>ADR &amp; DAC</i>	<a href="#">Click Here</a>	20	<i>MAR</i>	<a href="#">Click Here</a>
10	<i>Medication Counselling</i>	<a href="#">Click Here</a>	21	<i>DICE</i>	<a href="#">Click Here</a>
11	<i>Ward Pharmacy</i>	<a href="#">Click Here</a>	22		