



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

---

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

<b>Version</b>	<b>: 1.5</b>
<b>Document ID</b>	<b>: PB_U. MANUAL_MTAC</b>

## **Revision History**

<b>Version No</b>	<b>Date of Release</b>	<b>Prepared By</b>	<b>Reviewed / Verified by</b>	<b>List of changes from previous Version</b>
1.0	19/07/2013	Shalet	Norlaileza Sidek	First submission to MOH
1.1	09/05/2014	Shalet	Norlaileza Sidek	Application interface changes (screen)
1.2	08/12/2014	Noor Shazarina	Norlaileza Sidek	Change screen v1234
1.3	21/05/2015	Amalina Dianah	Norlaileza Sidek	Updated to v1.3
1.4	21/10/2016	Puteri	Norlaileza Sidek	Change to latest screenshot and function for version 1.4.1
1.5	05/04/2017	Sasha Sugathan	Norlaileza Sidek	Change to latest screenshot and function for version 1.5.1

## **Verified and Acknowledged By:**

<b>Name</b>	<b>Role / Designation</b>	<b>Organization</b>	<b>Signature &amp; Date</b>
Muazzam Bin Zulzalalin	Team Leader	Pharmaniaga Logistic Sdn. Bhd.	

<b>Name</b>	<b>Role / Designation</b>	<b>Organization</b>	<b>Signature &amp; Date</b>
		Bahagian Perkhidmatan Farmasi (BPF), KKM	

## **Peer Review**

<b>Version No</b>	<b>Reviewed / Verified By</b>	<b>List of changes from Previous Version</b>
1.0	Michelle Foo/Juraidah Ayob (QA)	First submission to MOH
1.1	Michelle Foo/Juraidah Ayob (QA)	Application interface changes (screen)
1.2	Michelle Foo/Juraidah Ayob (QA)	Change screen v1234
1.3	Michelle Foo/Juraidah Ayob (QA)	Updated to v1.3
1.4	Michelle Foo/Juraidah Ayob (QA)	Change to latest screenshot and function for version 1.4.1
1.5	Michelle Foo/Juraidah Ayob (QA)	Change to latest screenshot and function for version 1.5.1



© 2011-2017 Pharmacy Information System & Clinic Pharmacy System (PhIS & CPS) Project

**CONFIDENTIAL COPYRIGHTED MATERIAL** – The information includes all concepts, comments, recommendations, and material, contained herein shall remain the property of Pharmacy Information System & Clinic Pharmacy System (PhIS & CPS) Project. No portion of this document shall be disclosed, duplicated or used in whole or in part of any purpose other than the purpose of the Pharmacy Information System & Clinic Pharmacy System (PhIS & CPS) Project execution only

Reference ID : PB\_U. MANUAL\_MTAC-v1.5

Application reference: PhIS & CPS v1.5.1

## Table of Contents

1.0	Introduction .....	1
1.1	Overview of PhIS .....	1
1.2	Purpose and Objectives .....	1
1.3	Organised Sections .....	1
2.0	Application Standard Features .....	2
2.1	PhIS Legend .....	2
2.2	Latest Enhancement and Updates .....	4
3.0	MTAC .....	5
	Overview .....	5
	User Group .....	5
	Functional Diagram .....	5
	Functional Description .....	6
3.1	MTAC Order .....	7
3.1.1	View Existing MTAC Order .....	7
3.1.2	Create New MTAC Order .....	11
3.1.3	Reschedule MTAC Order .....	16
3.1.4	Cancel MTAC Order .....	18
3.2	MTAC Reporting .....	20
3.2.1	Create New MTAC Reporting With No Specific Details .....	20
3.2.2	Create New MTAC Reporting With Specific Details .....	36
3.2.2.10	Warfarin .....	74
4.0	Acronyms .....	76
5.0	Links to Clinical Modules .....	76

## 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







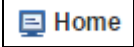


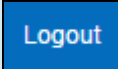














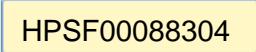
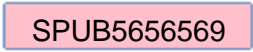


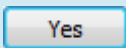
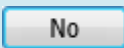
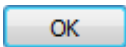


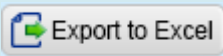




### 1.3 Organised Sections

These are the sections within this document:

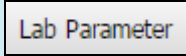
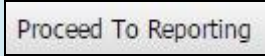
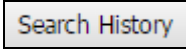
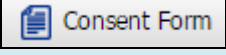


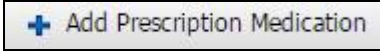
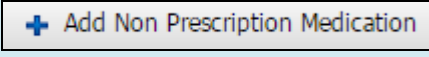



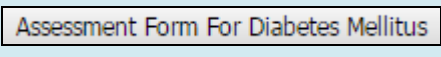


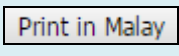
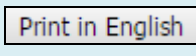
- Section 1 : Introduction
- Section 2 : Application Standard Features
- Section 3 : MTAC
- Section 4 : Acronyms
- Section 5 : Links to clinical modules

## 2.0 Application Standard Features

### 2.1 PhIS Legend

Standard Legend			
	Blank Field		Drop Down Box
	Reset Login		Login to PhIS
	Expand Menu		Collapse Menu
	Display Home Tab		Expand Module
	Collapse Module		Logout from PhIS
	Close All Tabs		Refresh
	Search First Page/ Previous Page		Search Next Page/Last Page
	Search Up/Down Button		Hyperlink
	Save		Show Help
	Search Icon		Add/Create New Record
	Calendar Icon		Search Record
	Close Window		Add/Update Button
	Auto generate an information by the system		Auto generate record no by the system
	Mandatory Field		Cancel Button
	Yes Button		No Button
	OK Button		Edit Record
	Print		Export report from PDF to Excel
	Check Box		Radio Button
	Cancel		Delete Record

## MTAC Module Legend

	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
Appointment date adjustable (backdated up to 5 days only)	<a href="#">page 14</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

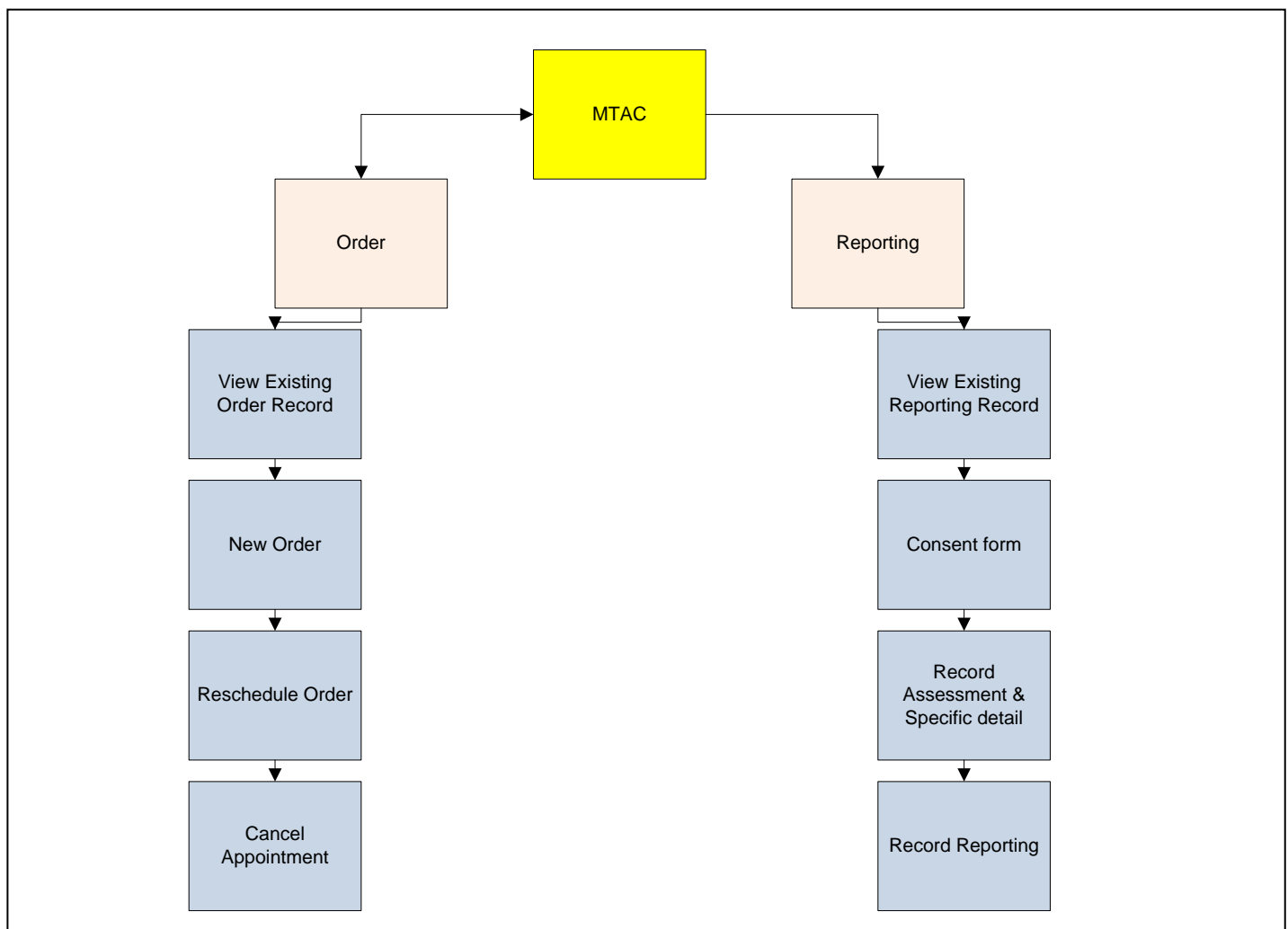


Figure 3.0-1

## 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

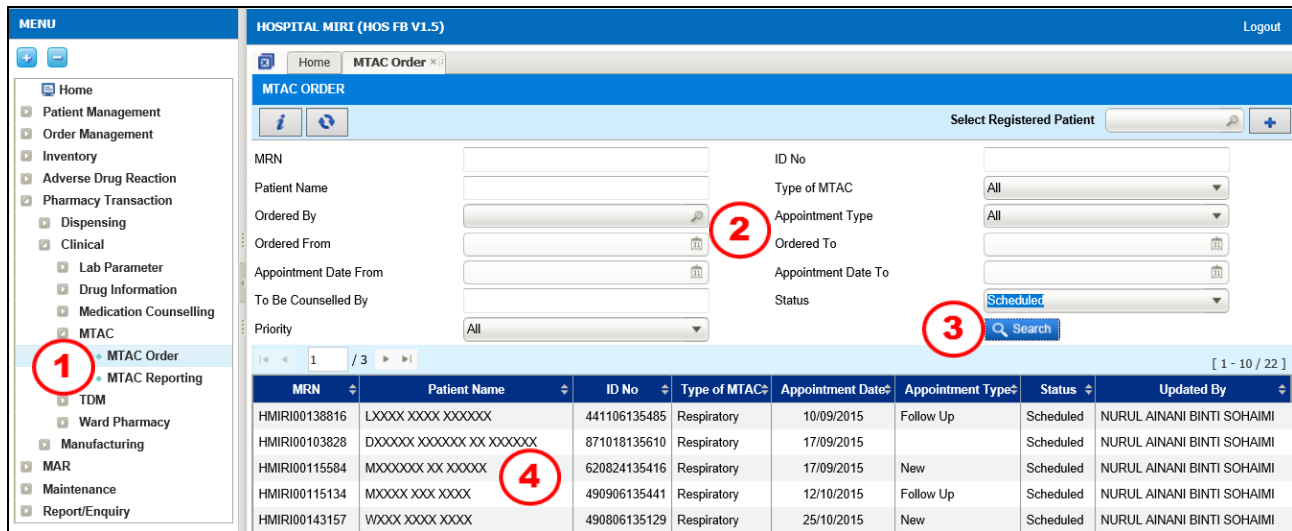
1. Chronic Kidney Disease
2. Diabetes Mellitus
3. Dialysis
4. Geriatric
5. Heart Failure
6. Methadone
7. Renal Transplant
8. Respiratory
9. Retro Viral Disease
10. Warfarin

### 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.



MRN	Patient Name	ID No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
HMIRI00138816	LXXXX XXXX XXXXXX	441106135485	Respiratory	10/09/2015	Follow Up	Scheduled	NURUL AINANI BINTI SOHAIMI
HMIRI00103828	DXXXXX XXXXXX XX XXXXXX	871018135610	Respiratory	17/09/2015	Scheduled	Scheduled	NURUL AINANI BINTI SOHAIMI
HMIRI00115584	MXXXXXX XX XXXXXX	620824135416	Respiratory	17/09/2015	New	Scheduled	NURUL AINANI BINTI SOHAIMI
HMIRI00115134	IXXXXX XXX XXXX	490906135441	Respiratory	12/10/2015	Follow Up	Scheduled	NURUL AINANI BINTI SOHAIMI
HMIRI00143157	WXXXX XXXX XXXX	490806135129	Respiratory	25/10/2015	New	Scheduled	NURUL AINANI BINTI SOHAIMI

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 counselling 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	<ul style="list-style-type: none"> <li>- All</li> <li>- Follow Up</li> <li>- Follow Up Reschedule</li> <li>- New</li> <li>- New Reschedule</li> </ul>	Able to filter and search by appointment type
	Priority	<ul style="list-style-type: none"> <li>- All</li> <li>- Urgent</li> <li>- Routine</li> </ul>	Able to filter and search by priority
	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
	Status	<ul style="list-style-type: none"> <li>- All</li> <li>- Ordered</li> <li>- Scheduled</li> <li>- Cancelled</li> <li>- In Progress</li> <li>- Completed</li> </ul>	Able to filter and search by status

**Table 3.1.1-1**

### STEP 3

Click on the  button to search the patient

#### **Note**

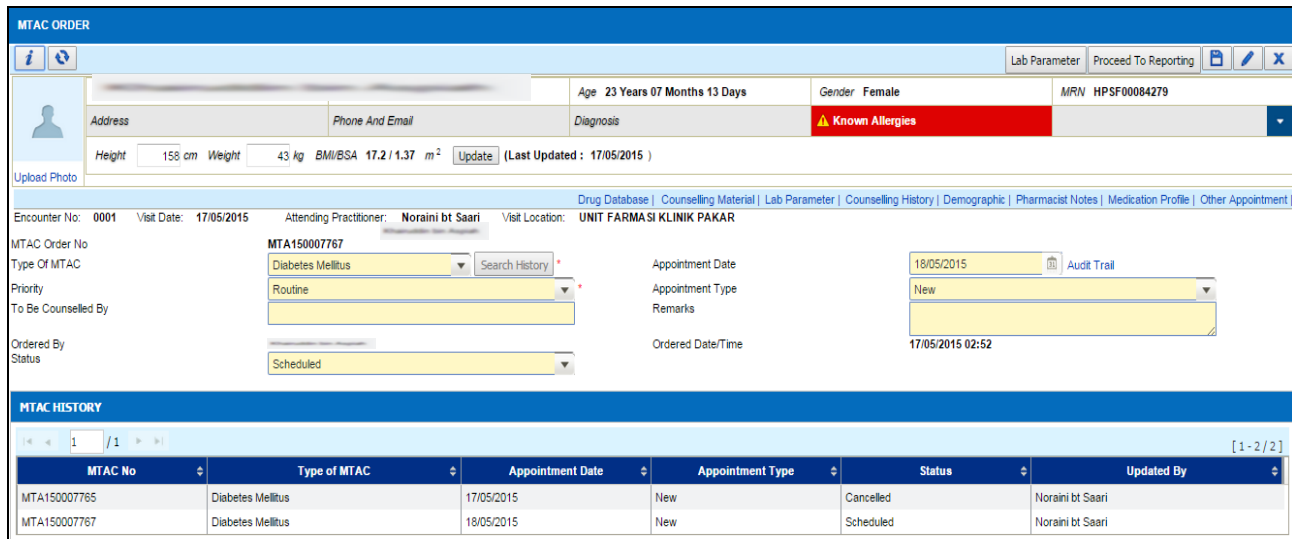
*Search result of current order patient list will be displayed:*

- 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 ORDER**

Lab Parameter | Proceed To Reporting

Age: 23 Years 07 Months 13 Days | Gender: Female | MRN: HPSF00084279

Address: | Phone And Email: | Diagnosis: | Known Allergies: [Red Alert Icon]

Height: 158 cm | Weight: 43 kg | BMI/BSA: 17.2 / 1.37 m<sup>2</sup> | Update (Last Updated: 17/05/2015)

Upload Photo

Encounter No: 0001 | Visit Date: 17/05/2015 | Attending Practitioner: Noraini bt Saari | Visit Location: UNIT FARMASI KLINIK PAKAR

Drug Database | Counselling Material | Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

MTAC Order No: MTA150007767

Type Of MTAC: Diabetes Mellitus | Search History

Priority: Routine

To Be Counselling By: [Empty Field]

Appointment Date: 18/05/2015 | Appointment Type: New

Remarks: [Empty Field]

Ordered By: [Empty Field] | Ordered Date/Time: 17/05/2015 02:52

Status: Scheduled

**MTAC HISTORY**

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

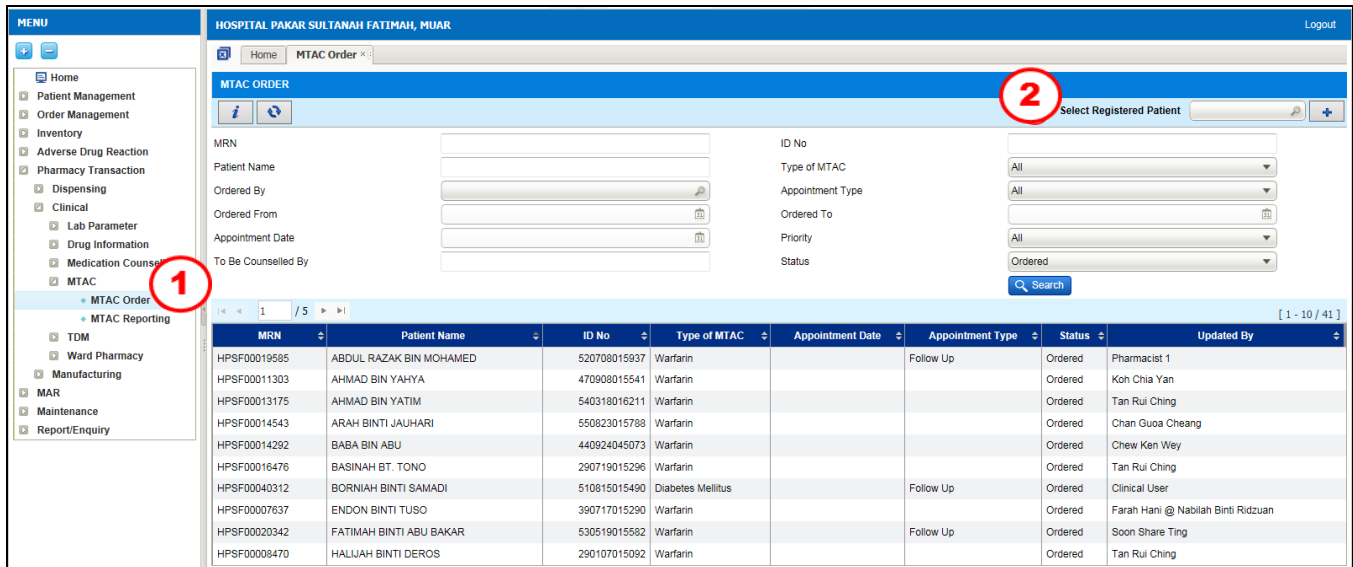
#### Note

- 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

- e) **Demographic**
  - Patient's demographic details
- f) **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	ABDUL RAZAK BIN MOHAMED	520708015937	Warfarin		Follow Up	Ordered	Pharmacist 1
HPSF00011303	AHMAD BIN YAHYA	470908015541	Warfarin			Ordered	Koh Chia Yan
HPSF00013175	AHMAD BIN YATIM	540318016211	Warfarin			Ordered	Tan Rui Ching
HPSF00014543	ARAH BINTI JAUHARI	550823015788	Warfarin			Ordered	Chan Guoa Cheang
HPSF00014292	BABA BIN ABU	440924045073	Warfarin			Ordered	Chew Ken Wey
HPSF00016476	BASINAH BT. TONO	290719015296	Warfarin			Ordered	Tan Rui Ching
HPSF00040312	BORNIH BINTI SAMADI	510815015490	Diabetes Mellitus		Follow Up	Ordered	Clinical User
HPSF00007637	ENDON BINTI TUSO	390717015290	Warfarin			Ordered	Farah Hani @ Nabillah Binti Ridzuan
HPSF00020342	FATIMAH BINTI ABU BAKAR	530519015582	Warfarin		Follow Up	Ordered	Soon Share Ting
HPSF00008470	HALUHA BINTI DEROS	290107015092	Warfarin			Ordered	Tan Rui Ching

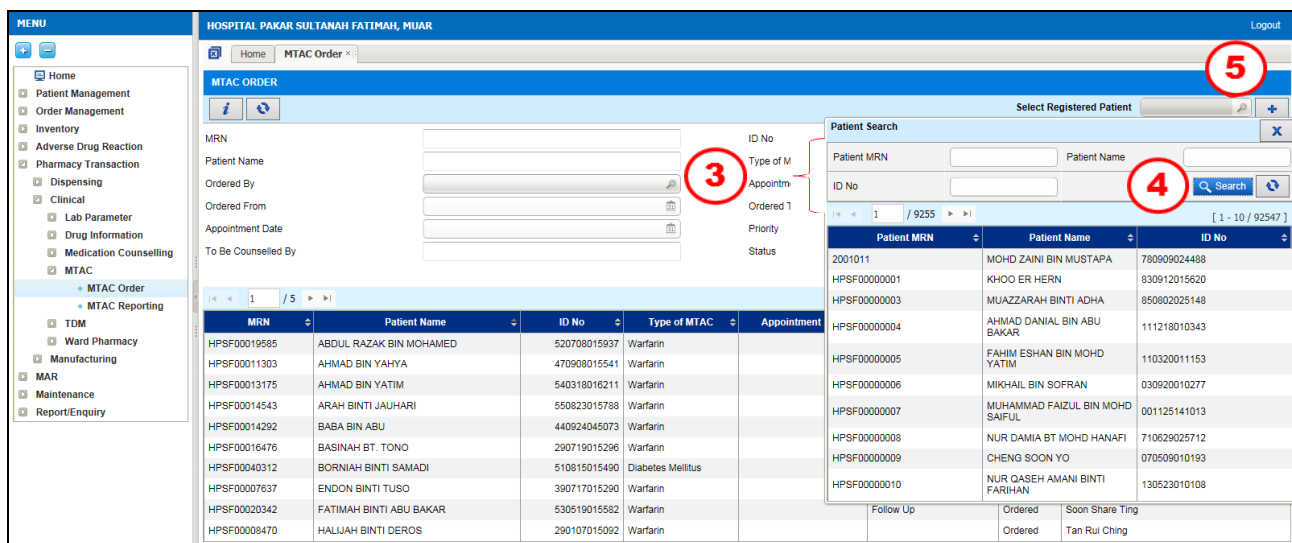
Figure 3.1.2-1 MTAC Order Listing Page

#### 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	Appointment
2001011	MOHD ZAINI BIN MUSTAPA	780909024488	
HPSF000000001	KHOO ER HERN	830912015620	
HPSF000000003	MUAZZARAH BINTI ADHA	850802025148	
HPSF000000004	AHMAD DANIAL BIN ABU BAKAR	111218010343	
HPSF000000005	FAHIM ESHAN BIN MOHD YATIM	110320011153	
HPSF000000006	MIKHAIL BIN SOFRAN	030920010277	
HPSF000000007	MUHAMMAD FAIZUL BIN MOHD SAIFUL	001125141013	
HPSF000000008	NUR DAMIA BT MOHD HANAFI	710629020272	
HPSF000000009	CHENG SOON YO	070509010193	
HPSF000000010	NUR QASEH AMANI BINTI FARHAN	130523010108	

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

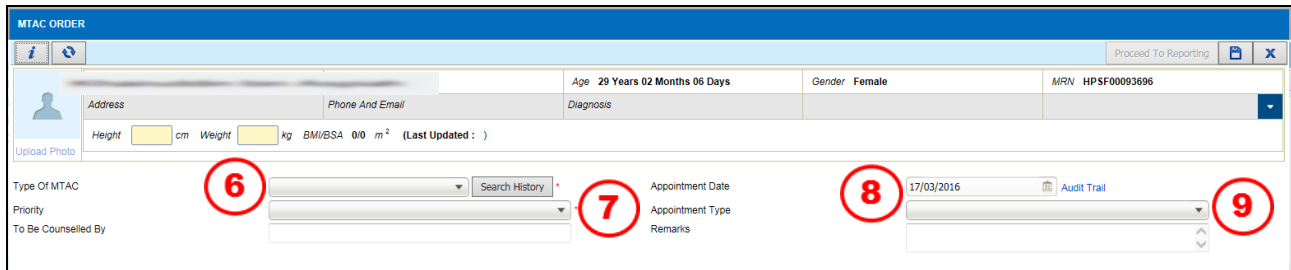
### STEP 4

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. It includes fields for patient information (Address, Phone And Email, Age, Gender, MRN), physical attributes (Height, Weight, BMI/BSA), and appointment details (Type Of MTAC, Priority, To Be Counseled By, Appointment Date, Appointment Type, Remarks). Numbered callouts indicate specific fields: 6 points to the 'Type Of MTAC' dropdown, 7 points to the 'Search History' button, 8 points to the 'Appointment Date' field, and 9 points to the 'Appointment Type' dropdown.

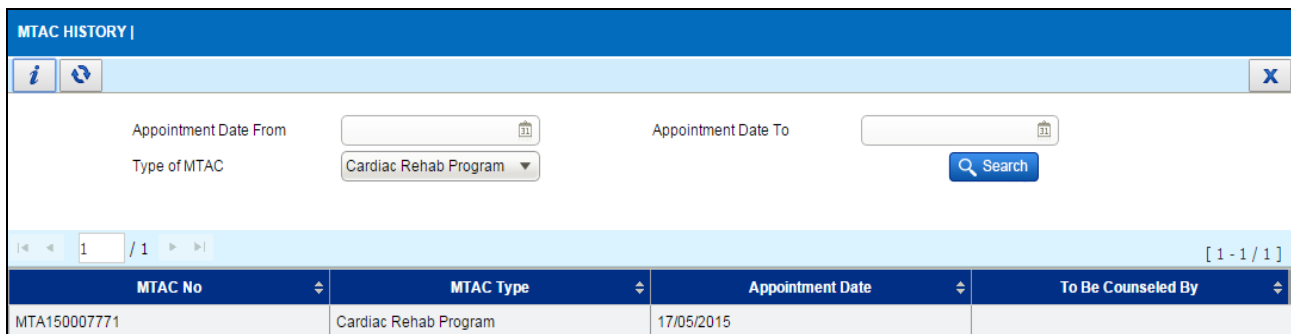
Figure 3.1.2-3 MTAC Order

### 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 **Search History** 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.



The screenshot shows the 'MTAC HISTORY' pop-up window. It includes search filters for 'Appointment Date From', 'Appointment Date To', and 'Type of MTAC' (set to 'Cardiac Rehab Program'). A 'Search' button is present. Below the filters is a table with the following data:

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  [Audit Trail](#)

Sep 2016						
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**.

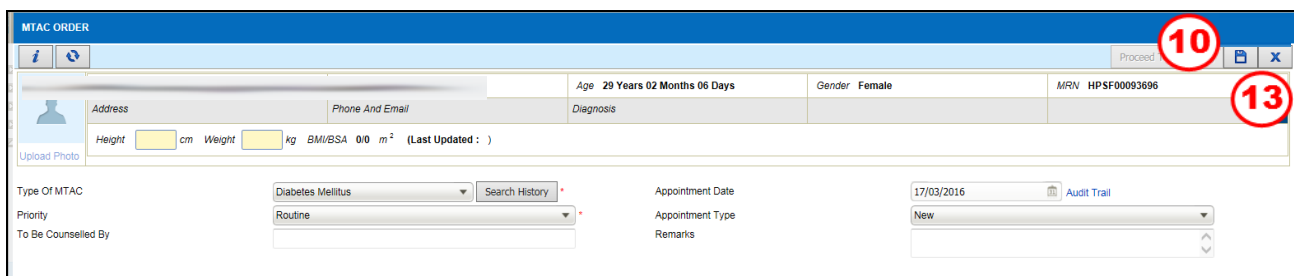
**STEP 9**

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 [Proceed To Reporting](#) 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**.



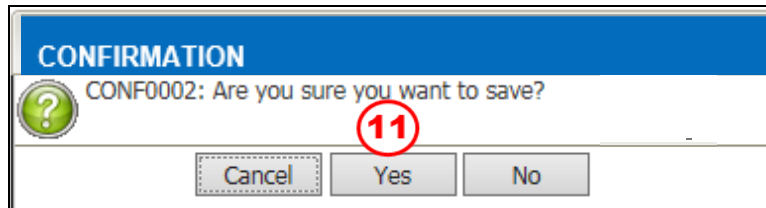
**Figure 3.1.2-5 MTAC Order**

**STEP 10**

Click on the  button to save the record


### STEP 11

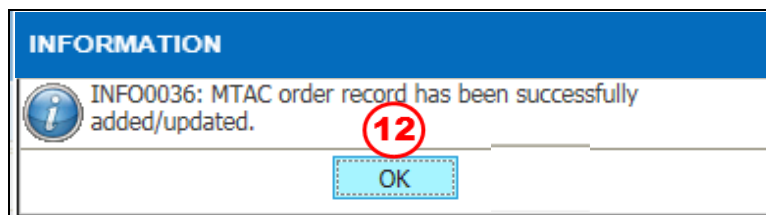
Click on the  button to confirm saving of order



**Figure 3.1.2-6 Confirmation Alert Message**


### STEP 12

Click on the  button to confirm record



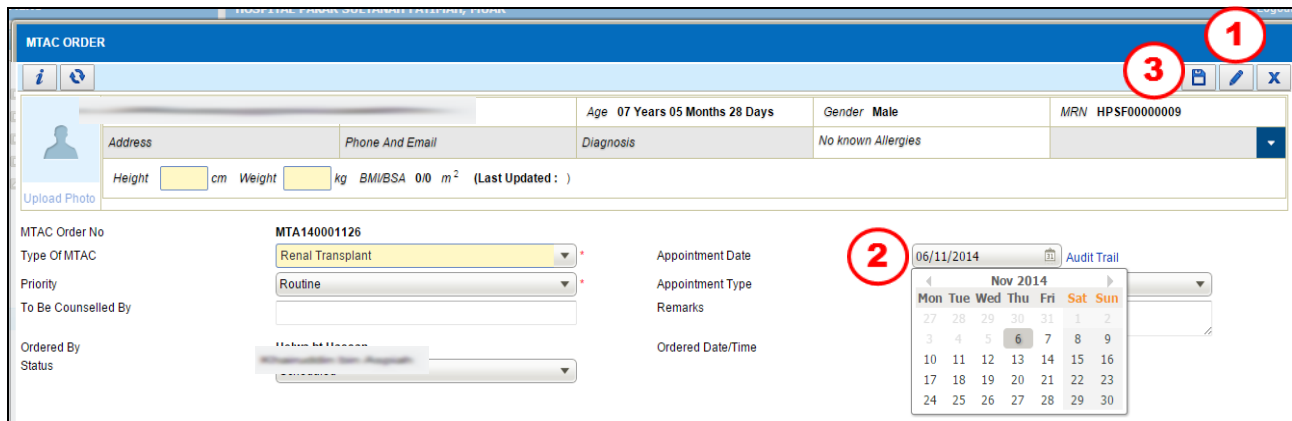
**Figure 3.1.2-7 Information Alert Message**

### 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



**MTAC ORDER**

Age: 07 Years 05 Months 28 Days | Gender: Male | MRN: HPSF00000009

Address: | Phone And Email: | Diagnosis: | No known Allergies

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

MTAC Order No: MTA140001126

Type Of MTAC: Renal Transplant

Priority: Routine

To Be Counselling By: |

Ordered By: | Status: |

Appointment Date: 06/11/2014

Appointment Type: |

Remarks: |

Ordered Date/Time: |

[Audit Trail](#)

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

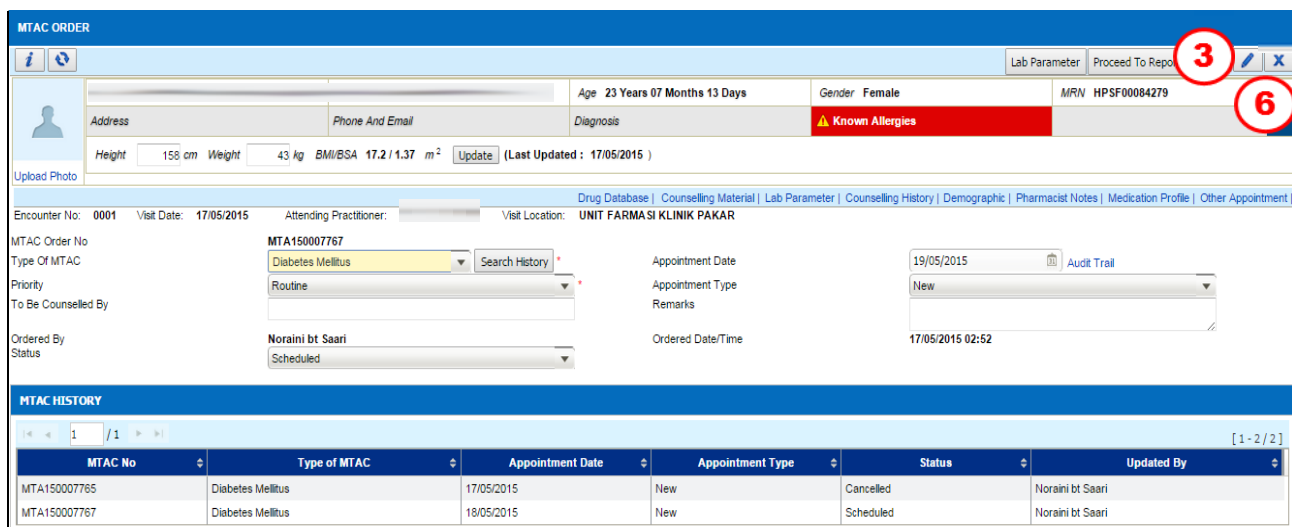
Click on the  button to edit MTAC order

#### 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 ORDER**

Age: 23 Years 07 Months 13 Days | Gender: Female | MRN: HPSF00084279

Address: | Phone And Email: | Diagnosis: | **Known Allergies**

Height: 158 cm | Weight: 43 kg | BMI/BSA: 17.2 / 1.37 m<sup>2</sup> | Update (Last Updated: 17/05/2015)

MTAC Order No: MTA150007767

Type Of MTAC: Diabetes Mellitus

Priority: Routine

To Be Counselling By: |

Ordered By: Noraini bt Saari | Status: Scheduled

Appointment Date: 19/05/2015

Appointment Type: New

Remarks: |

Ordered Date/Time: 17/05/2015 02:52


[Audit Trail](#)

**MTAC HISTORY**

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

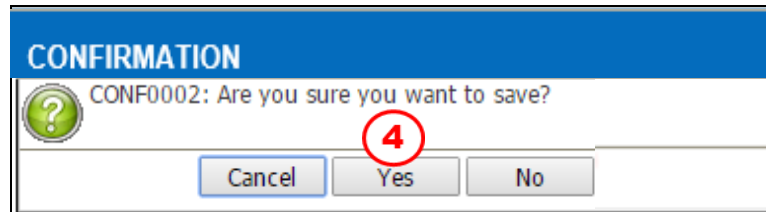



Figure 3.1.3-3 Confirmation alert message

### STEP 5

Click on the  button to confirm record

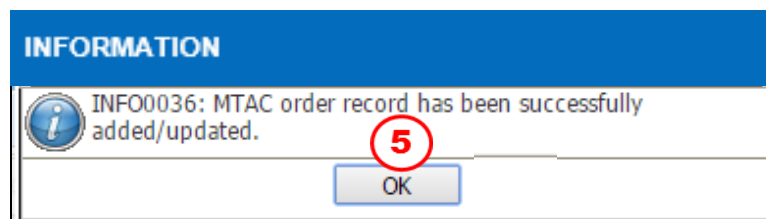



Figure 3.1.3-4 Information alert message

### STEP 6

Click on the  button to close record as shown in Figure 3.1.2.1-2

### 3.1.4 Cancel MTAC Order

This function is used to cancel an existing MTAC order

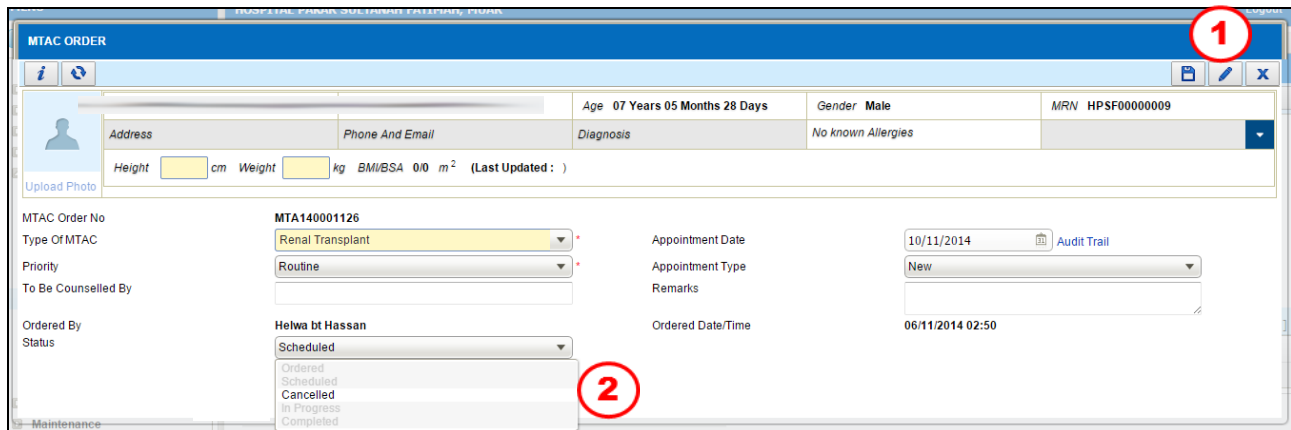


Figure 3.1.4-1 MTAC Order

#### **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.

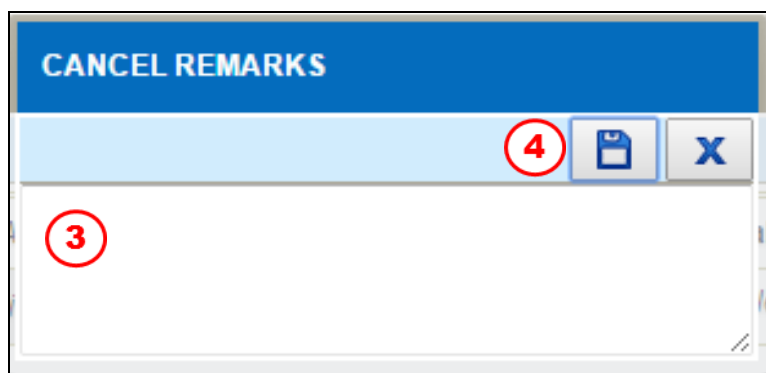


Figure 3.1.2.2-2 Cancel Remarks


#### **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

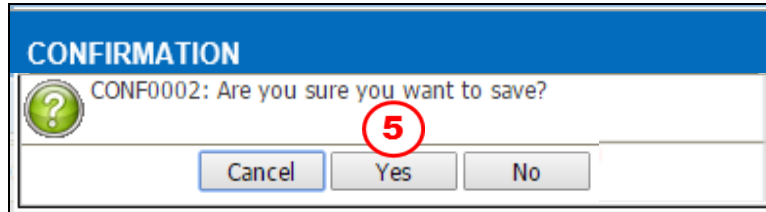


Figure 3.1.2.2-3 Confirmation Alert Message

#### STEP 6


Click on the  button to confirm record



Figure 3.1.2.2-4 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

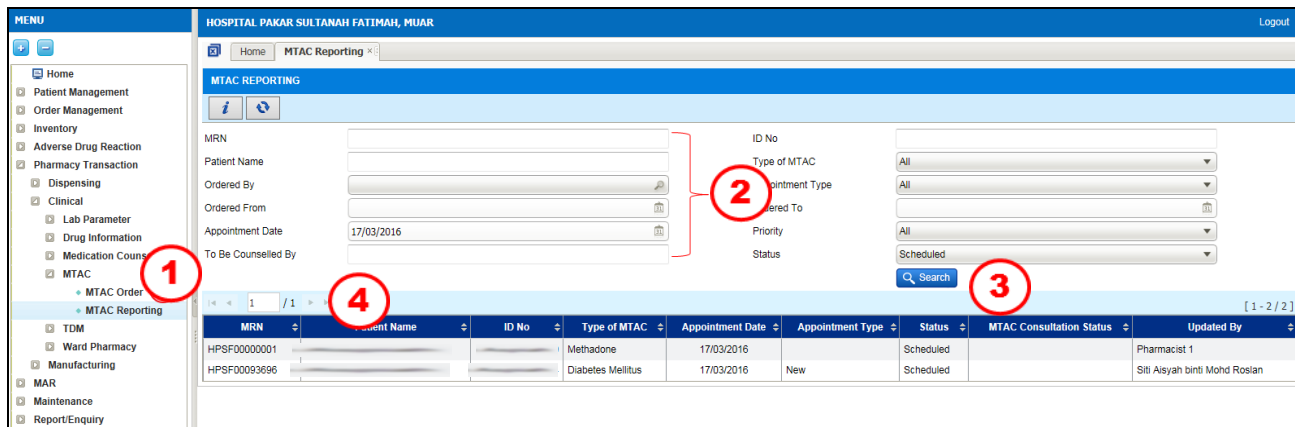


Figure 3.2.1-1 MTAC Reporting Listing Page

#### 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

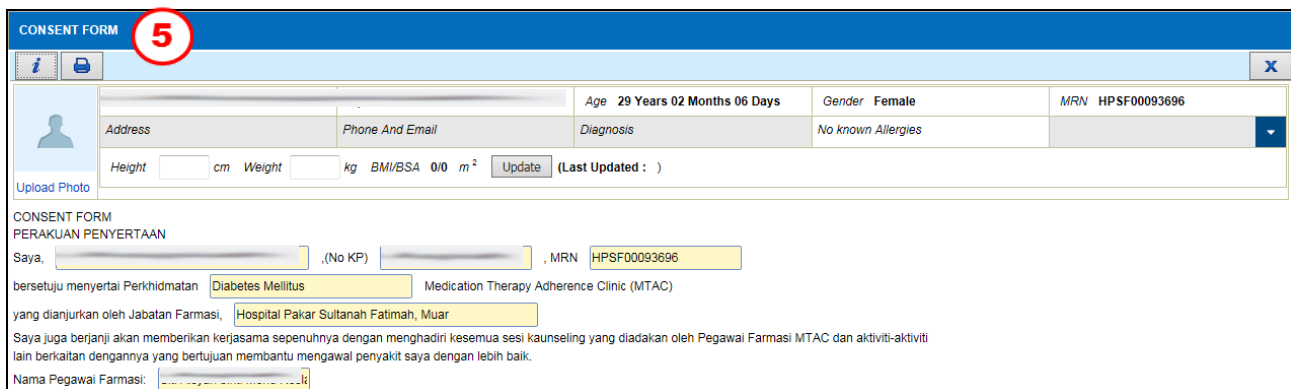




Figure 3.2.1-2 Consent Form

### 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

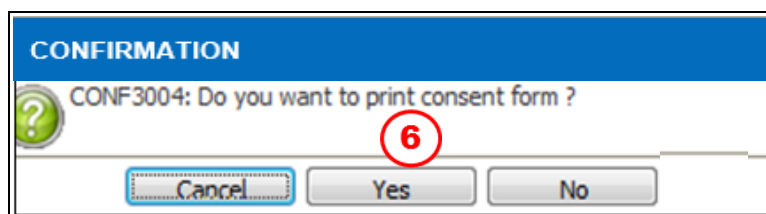


Figure 3.2.1-3 Print Report Alert Message



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

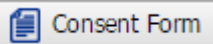
**PERAKUAN PENYERTAAN**

Saya, [REDACTED] (No KP) [REDACTED] MRN HPSE00000008  
bersetuju menyertai Perkhidmatan PSORIASIS Medication Therapy Adherence Clinic  
(MTAC) oleh Jabatan Farmasi, HOSPITAL PAKAR SULTANAH FATIMAH, MUAR  
(TRAINING). 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	Tandatangan
Nama pesakit: [REDACTED]	Nama Peg. Farmasi: [REDACTED]
Tarikh: 14/04/2016	Tarikh: 14/04/2016

**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

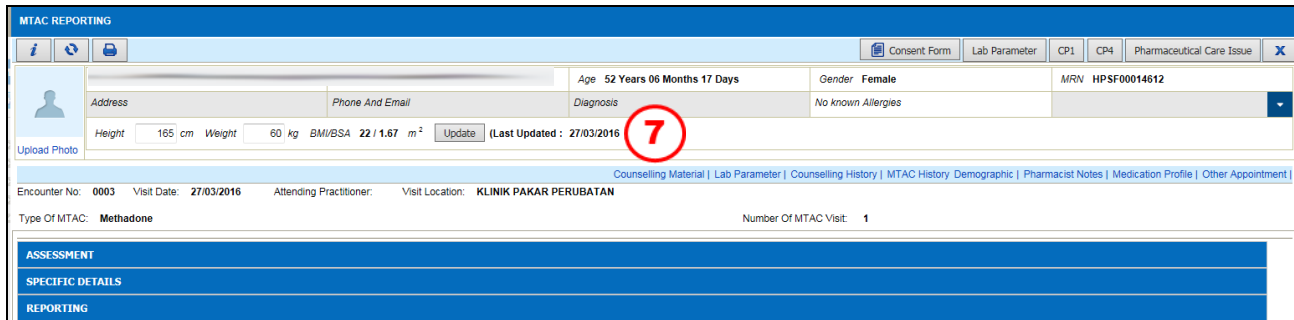


Figure 3.2.1-5 MTAC Reporting Screen

**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

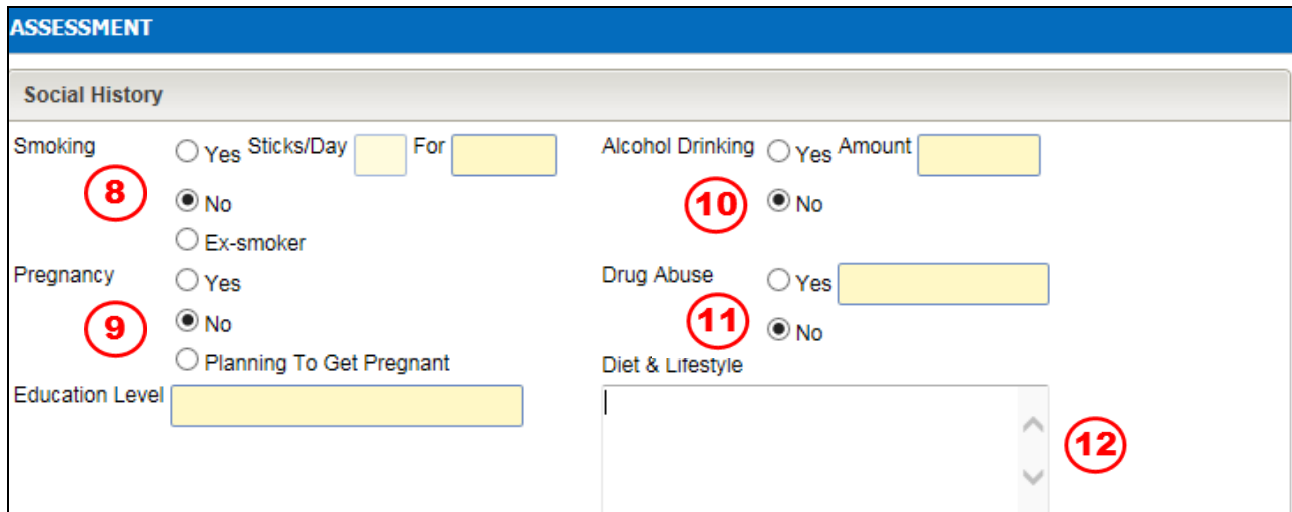


Figure 3.2.1-6 MTAC Reporting – Assessment on Social History

#### 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

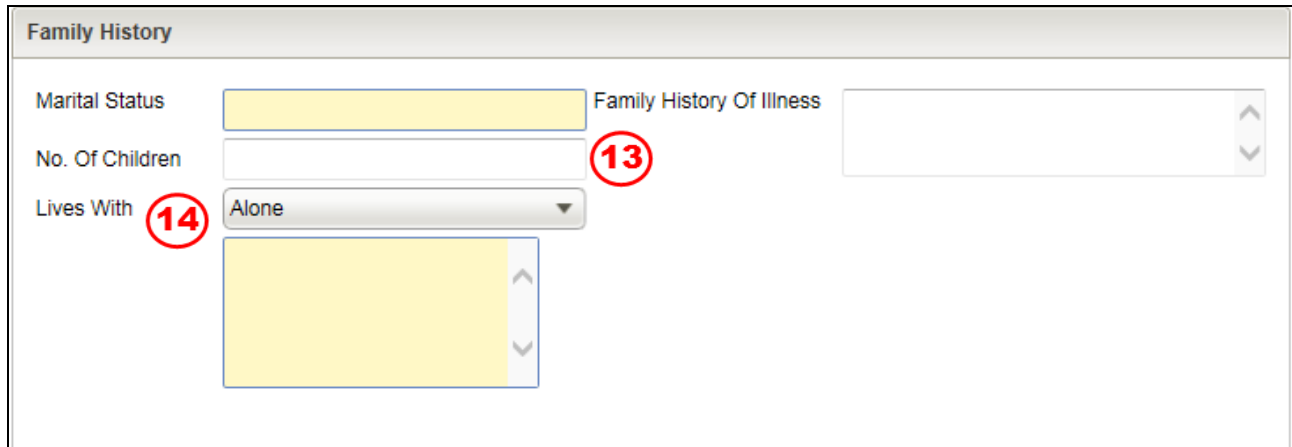


Figure 3.2.1-7 MTAC Reporting – Assessment on Family History

#### 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

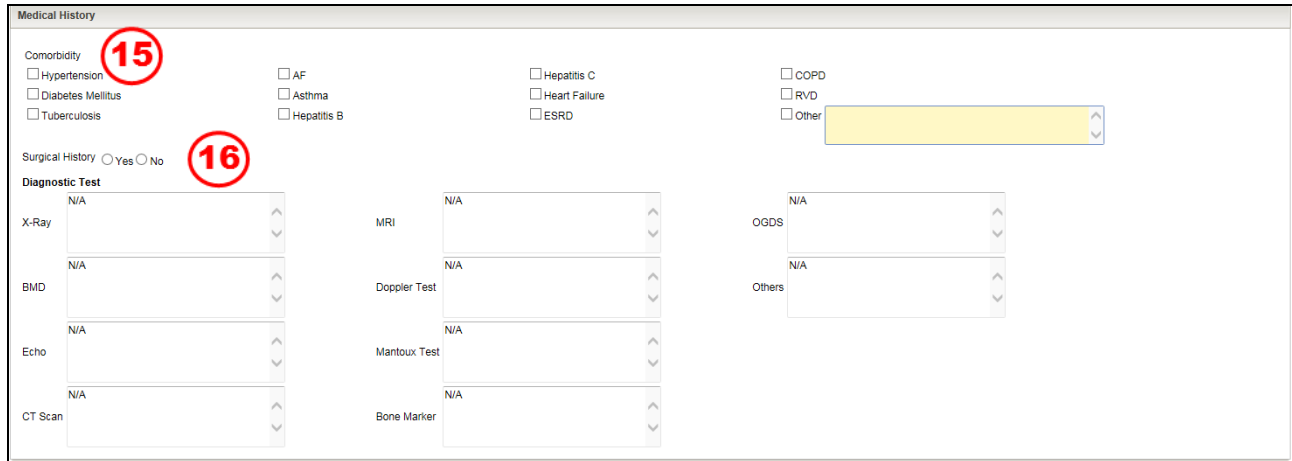
#### STEP 15

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 Age 23 Years 07 Months 16 Days Gender Female MRN HPSF00084284

Address Phone And Email Diagnosis No known Allergies

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

Counselling Material | Lab Parameter | Counselling History | MTAC History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment |

Encounter No: 0002 Visit Date: 20/05/2015 Attending Practitioner: 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

**CP1**

Age 23 Years 07 Months 16 Days Gender Female MRN HPSF00084284

Address Phone And Email Diagnosis 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 3.2.1-10 CP1

**Note**

- Click on the  button to add 'Past Medication History' as shown in Figure 3.2.1-9 and 'CP1' window as shown in Figure 3.2.1-10 will be displayed. After adding the medication, click on the  button to save
- Click on the  button and the 'Prescription Medication' window will be displayed as shown in Figure 3.2.1-10. Enter the necessary information and save
- Click on the  button and the 'Non Prescription Medication' window will be displayed as shown in Figure 3.2.1-11. Enter the necessary information and save
- Click on the  button as shown in Figure 3.2.1-12 to edit or to add details to the medication



PRESCRIPTION MEDICATION

Medication (Specify Strength)


Dose

Frequency

Comments

Balance From Previous Supply




Medication Status 

- Select -


Source of Medication

Figure 3.2.1-11 Prescription Medication

NON PRESCRIPTION MEDICATION

Non-prescription Medication




Source of Medication


Reason for Taking

Balance/Comments

Figure 3.2.1-12 Non Prescription Medication

CP1



 




Upload Photo

Age 23 Years 07 Months 16 Days
Gender Female
MRN HPSF00084284

Address
Phone And Email
Diagnosis
No known Allergies

Height 158 cm Weight 45 kg BMI/BSA 18 / 1.41 m<sup>2</sup>
 (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 3.2.1-13 CP1 (Edit)

## STEP 17

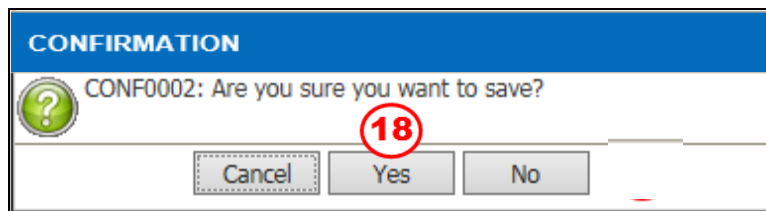
Click on the  button as shown in Figure 3.2.1-14 to save assessment and continue with reporting section



**Figure 3.2.1-14 MTAC Reporting – Assessment Past Medication History**

**STEP 18**

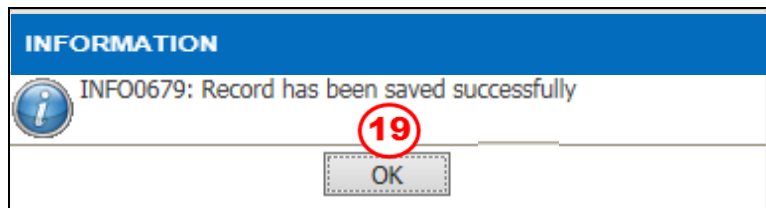
Click on the  button to confirm save order



**Figure 3.2.1-15 Confirmation Alert Message**

**STEP 19**

Click on the  button to confirm record



**Figure 3.2.1-16 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 tab to continue with the reporting process

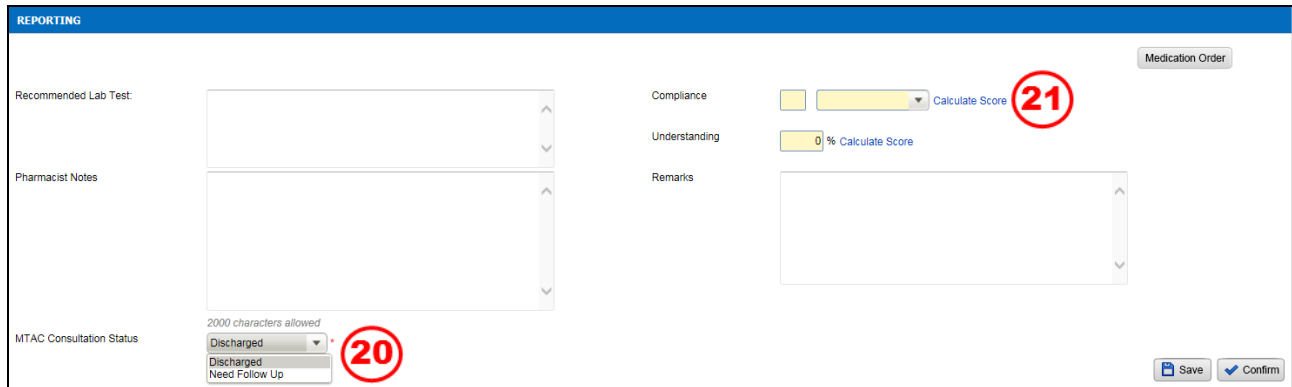


Figure 3.2.1-17 MTAC Reporting

#### STEP 20

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

- Discharged
- Need Follow Up

#### STEP 21

Click on the [Calculate Score](#) hyperlink for **Compliance** and the 'Compliance Calculator' window will be displayed as shown in Figure 3.2.1-18

#### STEP 22

Select **Modified Morisky Medication Adherence Scale - Questions** from the check box

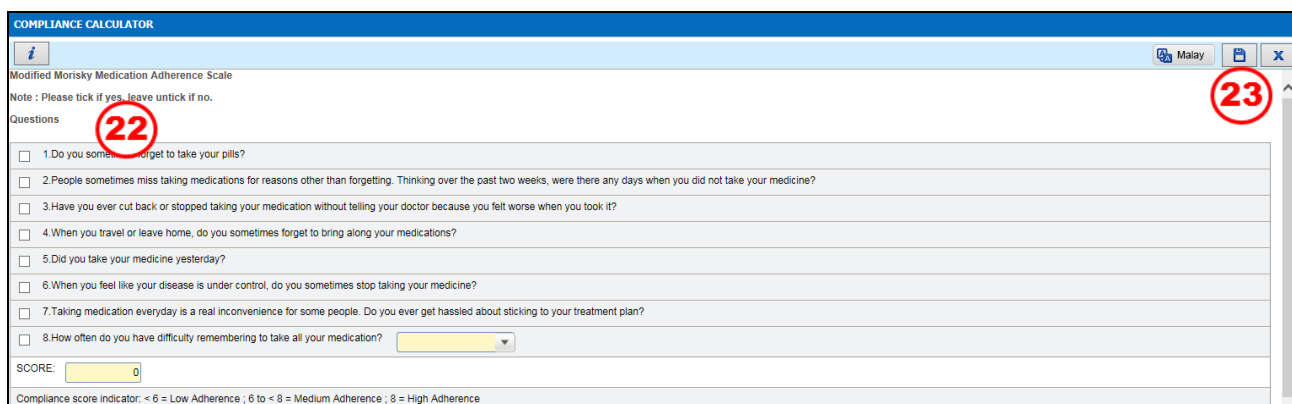




Figure 3.2.1-18 Compliance Calculator


**Note**

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

**STEP 23**

Click on the  button to save the compliance calculator record

**STEP 24**

Click on the  button to confirm save order

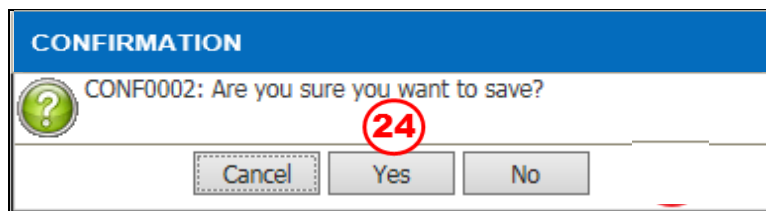
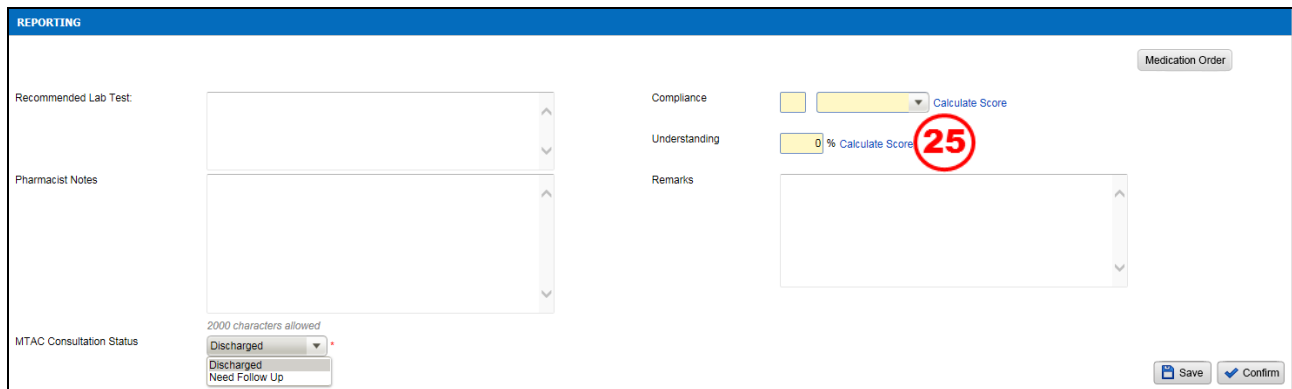


Figure 3.2.1-19 Confirmation alert message

**STEP 25**

Click on the [Calculate Score](#) hyperlink for **Understanding** and the 'Review of Patient's Understanding (Medication) DFIT' will be displayed as shown in Figure 3.2.1-21



The 'REPORTING' form has a blue header. It contains several sections: 'Recommended Lab Test' with a text area; 'Pharmacist Notes' with a larger text area; 'MTAC Consultation Status' with a dropdown menu showing 'Discharged', 'Discharged', and 'Need Follow Up'; 'Compliance' with a dropdown menu and a 'Calculate Score' link; 'Understanding' with a dropdown menu showing '0 %' and a 'Calculate Score' link; and 'Remarks' with a text area. A red circle with the number '25' is overlaid on the 'Calculate Score' link for 'Understanding'. At the bottom right are 'Save' and 'Confirm' buttons.

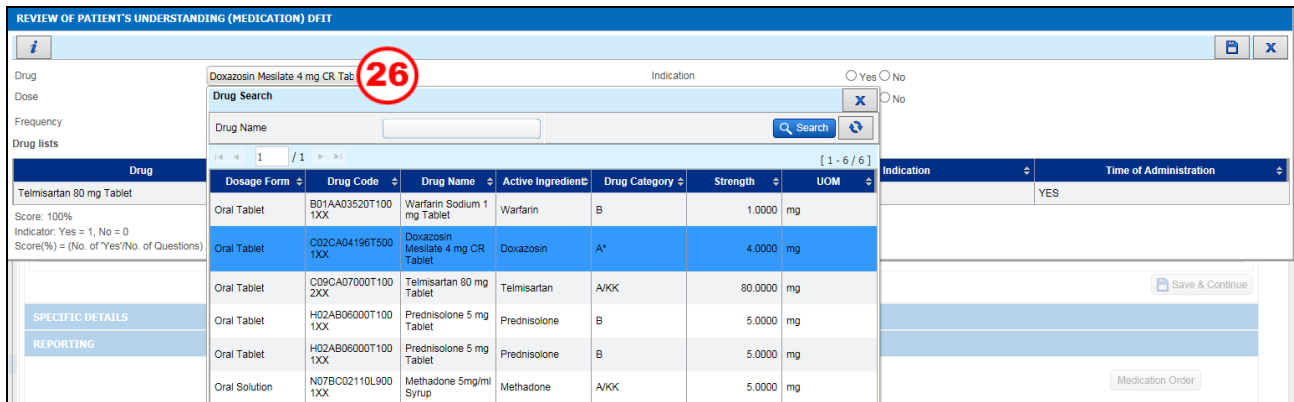
Figure 3.2.1-20 MTAC Reporting - Reporting

## STEP 26

Select **Drug** by clicking on the  button

### Note


- Select **Dose, Frequency, Indication and Time of Administration** from the radio button:
  - Yes
  - No




Drug	Dosage Form	Drug Code	Drug Name	Active Ingredient	Drug Category	Strength	UOM	Indication	Time of Administration
Telmisartan 80 mg Tablet	Oral Tablet	B01AA03520T100 1XX	Warfarin Sodium 1 mg Tablet	Warfarin	B	1.0000 mg			YES
	Oral Tablet	C02CA04196T500 1XX	Doxazosin Mesilate 4 mg CR Tablet	Doxazosin	A*	4.0000 mg			
	Oral Tablet	C09CA07000T100 2XX	Telmisartan 80 mg Tablet	Telmisartan	A/KK	80.0000 mg			
	Oral Tablet	H02AB06000T100 1XX	Prednisolone 5 mg Tablet	Prednisolone	B	5.0000 mg			
	Oral Tablet	H02AB06000T100 1XX	Prednisolone 5 mg Tablet	Prednisolone	B	5.0000 mg			
	Oral Solution	N07BC02110L900 1XX	Methadone 5mg/ml Syrup	Methadone	A/KK	5.0000 mg			

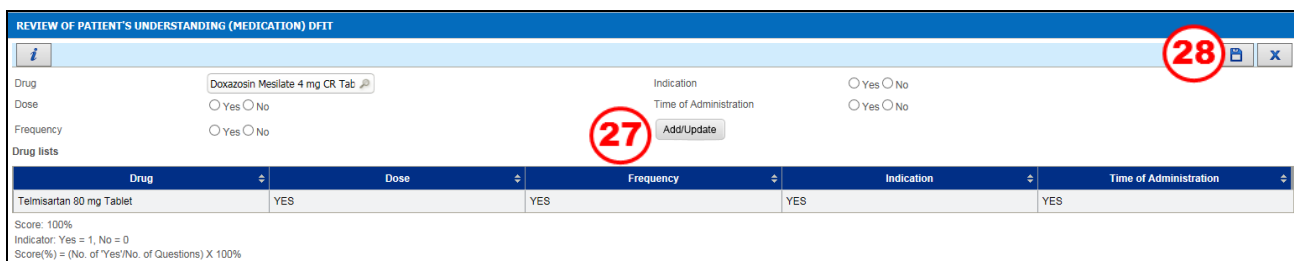
Figure 3.2.1-21 Review of Patient's Understanding (Medication) DFIT

## STEP 27

Click on the  button to add and update at drug list

## STEP 28

Click on the  button to save the Understanding calculator record



Drug	Dose	Frequency	Indication	Time of Administration
Telmisartan 80 mg Tablet	YES	YES	YES	YES

Figure 3.2.1-22 Review of Patient's Understanding (Medication) DFIT

## STEP 29

Click on the  button to confirm save record

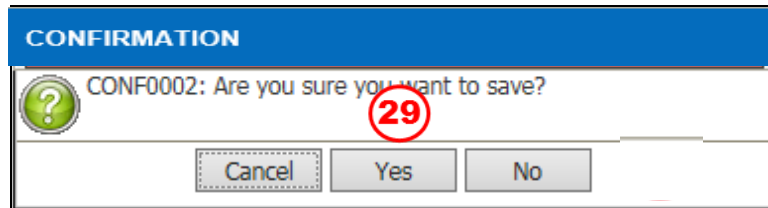



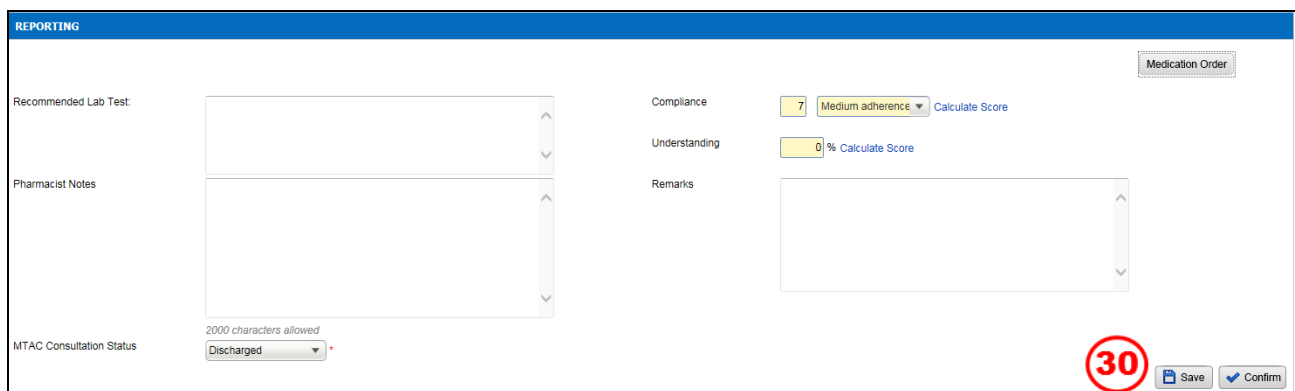
Figure 3.2.1-22 Confirmation Alert Message

## Note

- Score will be automatically calculated and automatically displayed.
- Click on the  button to view medication order screen and perform MTAC medication order if necessary.

## STEP 30

Click on the  button as shown in Figure 3.2.1-18 to save record



A screenshot of the 'REPORTING' form. The form has a blue header bar labeled 'REPORTING'. Below the header, there are several sections: 'Recommended Lab Test' with a text area, 'Pharmacist Notes' with a text area, and 'MTAC Consultation Status' with a dropdown menu showing 'Discharged'. To the right, there are sections for 'Compliance' (with a value of 7 and a 'Medium adherence' dropdown), 'Understanding' (with a value of 0 and a '%' dropdown), and 'Remarks' with a text area. A 'Medication Order' button is located in the top right corner. At the bottom right, there are 'Save' and 'Confirm' buttons. A red circle with the number '30' is overlaid on the 'Save' button.

Figure 3.2.1-23 MTAC Reporting - Reporting

## STEP 31

Click on the  button to confirm save record

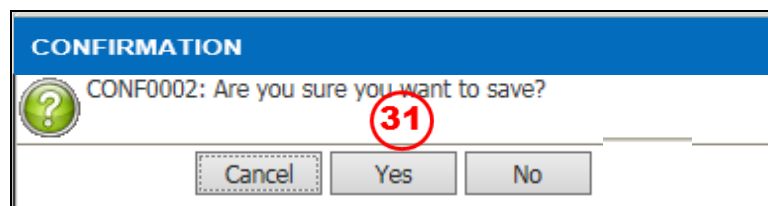


Figure 3.2.1-23 Confirmation Alert Message

### STEP 32

Click on the  button to confirm record

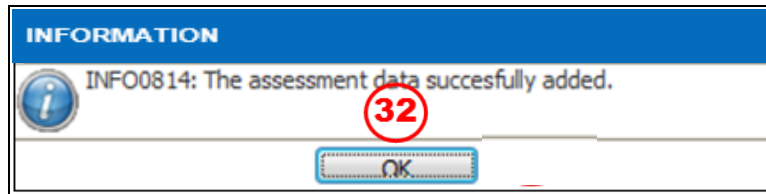


Figure 3.2.1-24 Information Alert Message

### STEP 33

Click on the  button to confirm reporting

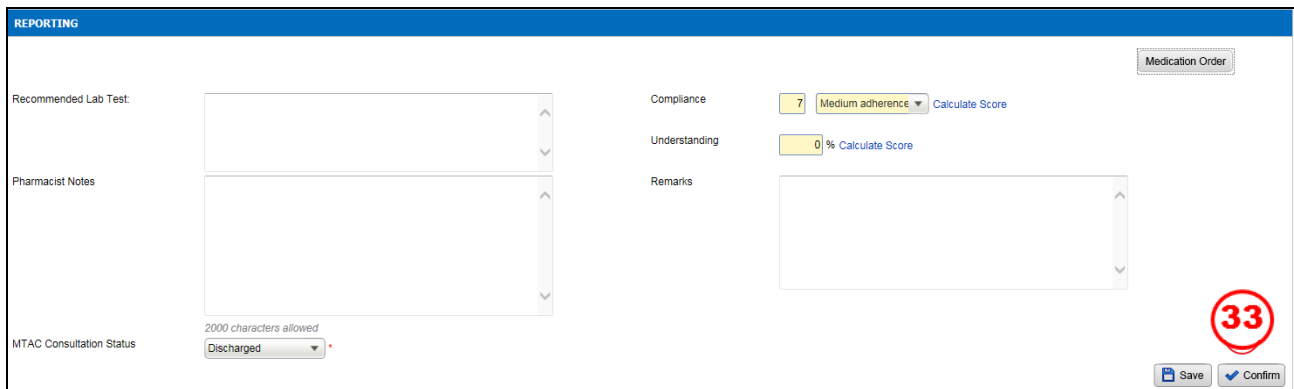

A screenshot of the 'REPORTING' form. It has a blue header bar labeled 'REPORTING'. The form contains several sections: 'Recommended Lab Test' with a text area, 'Pharmacist Notes' with a text area, 'MTAC Consultation Status' with a dropdown menu showing 'Discharged', 'Compliance' with a dropdown showing '7' and 'Medium adherence', 'Understanding' with a dropdown showing '0 %', and 'Remarks' with a text area. There are 'Calculate Score' buttons next to the Compliance and Understanding dropdowns. At the bottom right, there are 'Save' and 'Confirm' buttons. A red circle with the number '33' is placed over the 'Confirm' button.

Figure 3.2.1-25 MTAC Reporting – Reporting

### STEP 34

Click on the  button to confirm complete reporting and save the record for MTAC Reporting

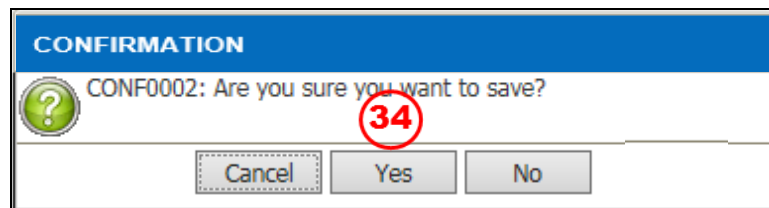


Figure 3.2.1-26 Confirmation Alert Message

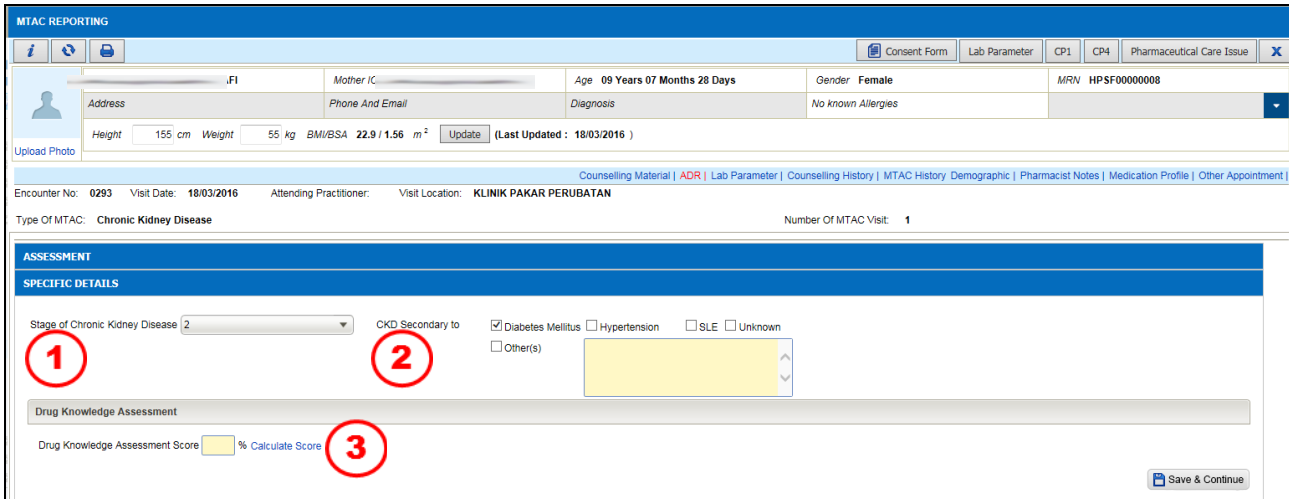
### Note

*After user has confirmed the record, no more editing on the MTAC Reporting is allowed.*

## 3.2.2 Create New MTAC Reporting With Specific Details

### 3.2.2.1 Chronic Kidney Disease

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



The screenshot shows the 'MTAC REPORTING' interface. At the top, there are tabs for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this is a patient information section with fields for Name, Mother IC, Age (09 Years 07 Months 28 Days), Gender (Female), MRN (HPSF00000008), Address, Phone And Email, Diagnosis, and No known Allergies. There is also a section for Height (155 cm), Weight (55 kg), BMI/BSA (22.9 / 1.56 m<sup>2</sup>), and an 'Update' button. Below this is a section for 'Encounter No: 0293', 'Visit Date: 18/03/2016', 'Attending Practitioner', and 'Visit Location: KLINIK PAKAR PERUBATAN'. The 'Type Of MTAC' is 'Chronic Kidney Disease' and 'Number Of MTAC Visit' is '1'. The main section is titled 'ASSESSMENT' and 'SPECIFIC DETAILS'. It contains a 'Stage of Chronic Kidney Disease' dropdown menu (highlighted with a red circle 1), a 'CKD Secondary to' section with checkboxes for 'Diabetes Mellitus', 'Hypertension', 'SLE', 'Unknown', and 'Other(s)' (highlighted with a red circle 2), and a 'Drug Knowledge Assessment' section with a 'Drug Knowledge Assessment Score' field and a 'Calculate Score' button (highlighted with a red circle 3). A 'Save & Continue' button is at the bottom right.

Figure 3.2.2.1-1 Specific Details – Chronic Kidney Disease

#### Note

Repeat **STEP 1 to 19** 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 3.2.2.1-2

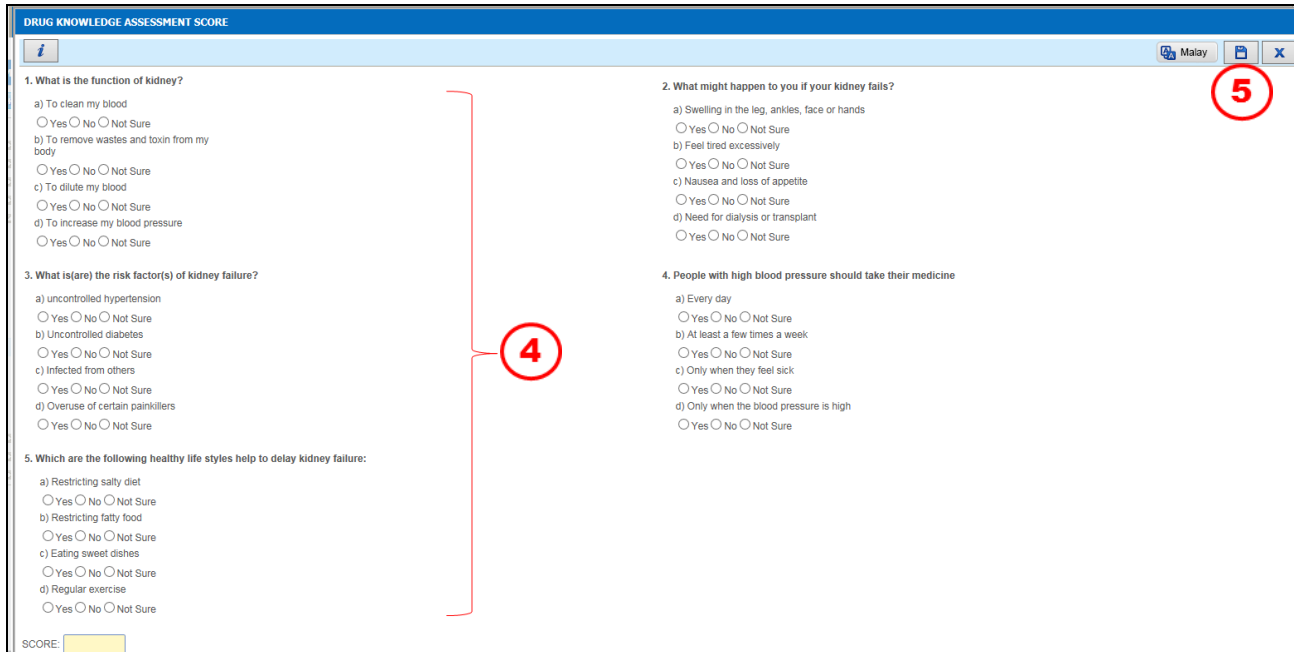



Figure 3.2.2.1-2 Drug Knowledge Assessment Score

### 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

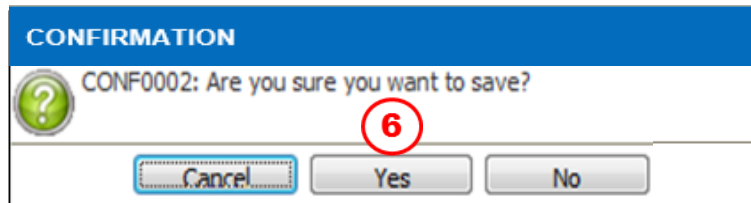
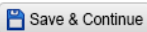
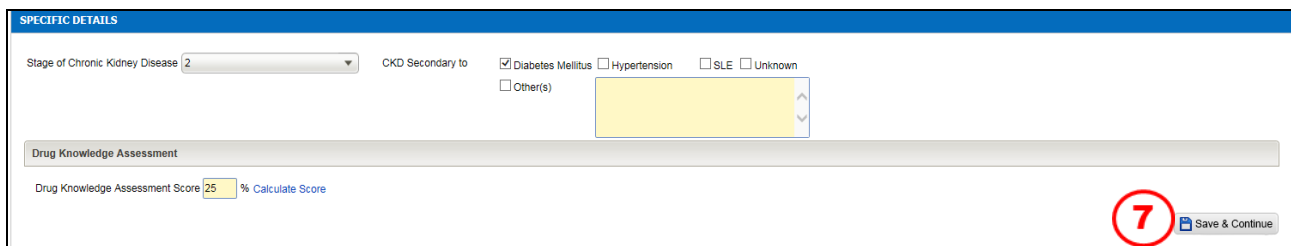


Figure 3.2.2.1-3 Confirmation Alert Message

## STEP 7

Click on the  button as shown in Figure 3.2.2.1-1 to save and continue with reporting section



A form titled "SPECIFIC DETAILS" for Chronic Kidney Disease. It includes a dropdown for "Stage of Chronic Kidney Disease" (set to 2), a section for "CKD Secondary to" with checkboxes for "Diabetes Mellitus", "Hypertension", "SLE", "Unknown", and "Other(s)", and a "Drug Knowledge Assessment" section with a score of 25 and a "Calculate Score" button. The "Save & Continue" button at the bottom right is circled with a red number 7.

Figure 3.2.2.1-4 Specific Details – Chronic Kidney Disease

## STEP 8

Click on the  button to confirm save record

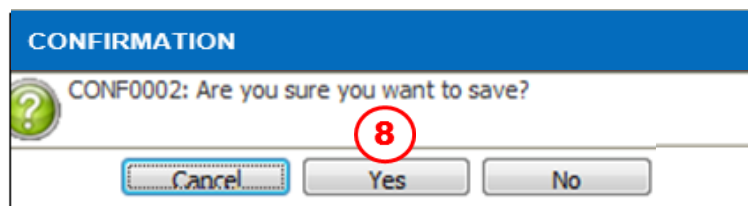



Figure 3.2.2.1-5 Confirmation Alert Message

## STEP 9

Click on the  button to confirm record

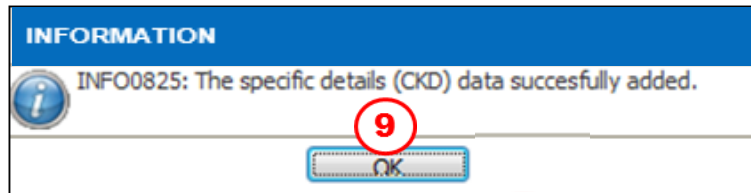


Figure 3.2.2.1-6 Information alert message

### Note

For 'Reporting' section, repeat **STEP 20 to 34** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#).

### 3.2.2.2 Diabetes Mellitus

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

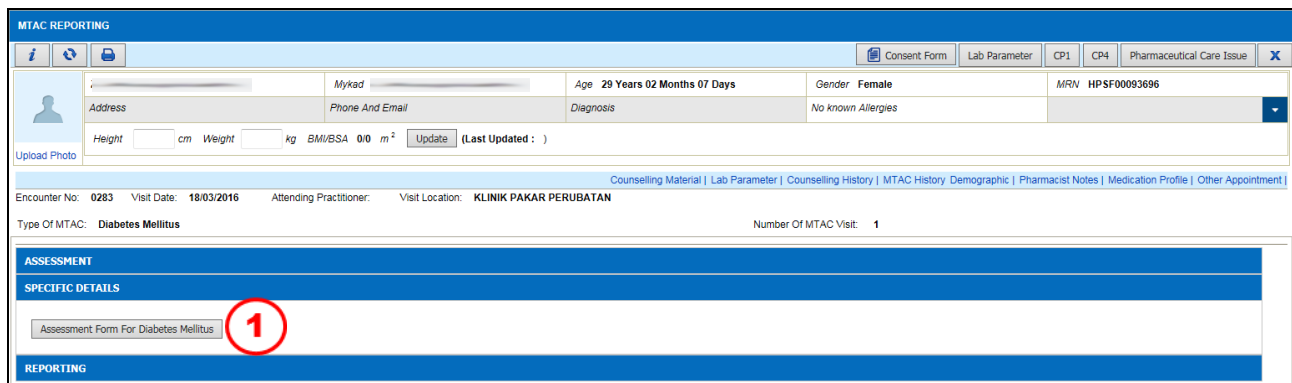
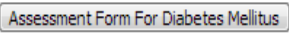


Figure 3.2.2.2-1 Specific Details - Diabetes Mellitus

#### **Note**

Repeat **STEP 1 to 19** 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 3.2.2.2-2 will be used during MTAC counselling

DIABETES MELLITUS ASSESSMENT

1. Kencing manis (Diabetes Mellitus) adalah penyakit?

☐ 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?

☐ 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

☐ Setelah selepas makan

☐ Sebelum 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

☐ Cirit-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 ? 8.0 mmol/L

☐ Plasma Glukosa > 10.00 mmol/L (puasa)

Sila jawab soalan berikut, sekiranya anda mengambil suntikan insulin?

14. Dimanakah anda menyimpan Stok insulin?

☐ Dalam peti sejuk beku (0u00EFu00BFu00BDC)

☐ 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 3.2.2.2 Diabetes Mellitus Assessment**

## STEP 3

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

CONFIRMATION



CONF0002: Are you sure you want to save?

Cancel

Yes

No

**Figure 3.2.2.3 Confirmation Alert Message**

#### STEP 4

Click on the  button to confirm save record

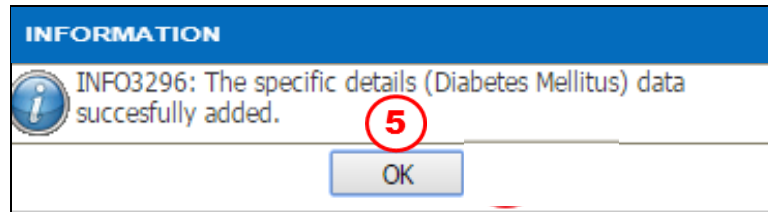



Figure 3.2.2.2-4 Information Alert Message

#### STEP 5

Click on the  button to confirm record

#### Note

For 'Reporting' section, repeat **STEP 20 to 34** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#).

### 3.2.2.3 Dialysis

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

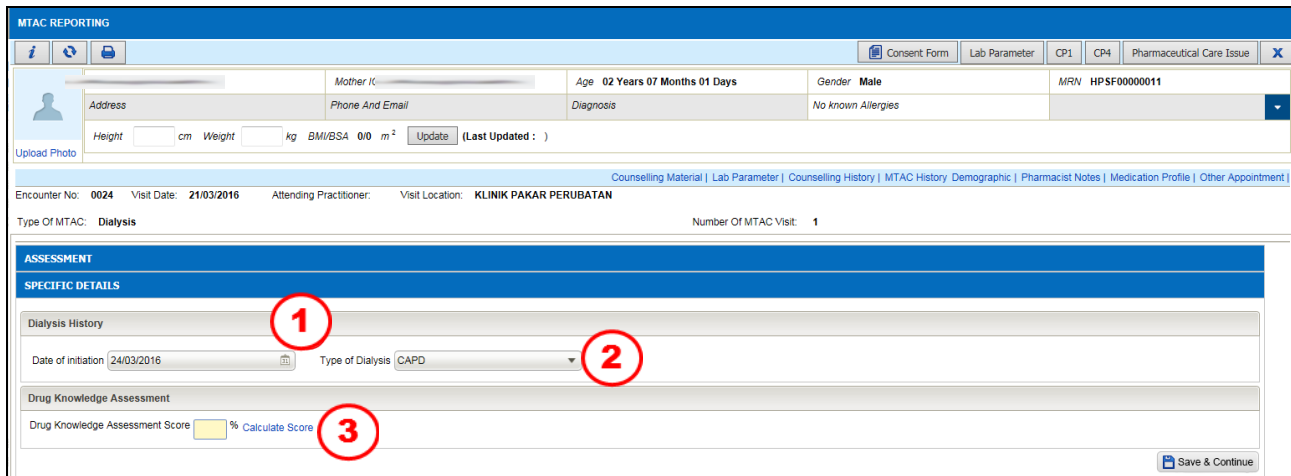



Figure 3.2.2.3-1 Specific Details - Dialysis

#### Note

Repeat **STEP 1 to 20** 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

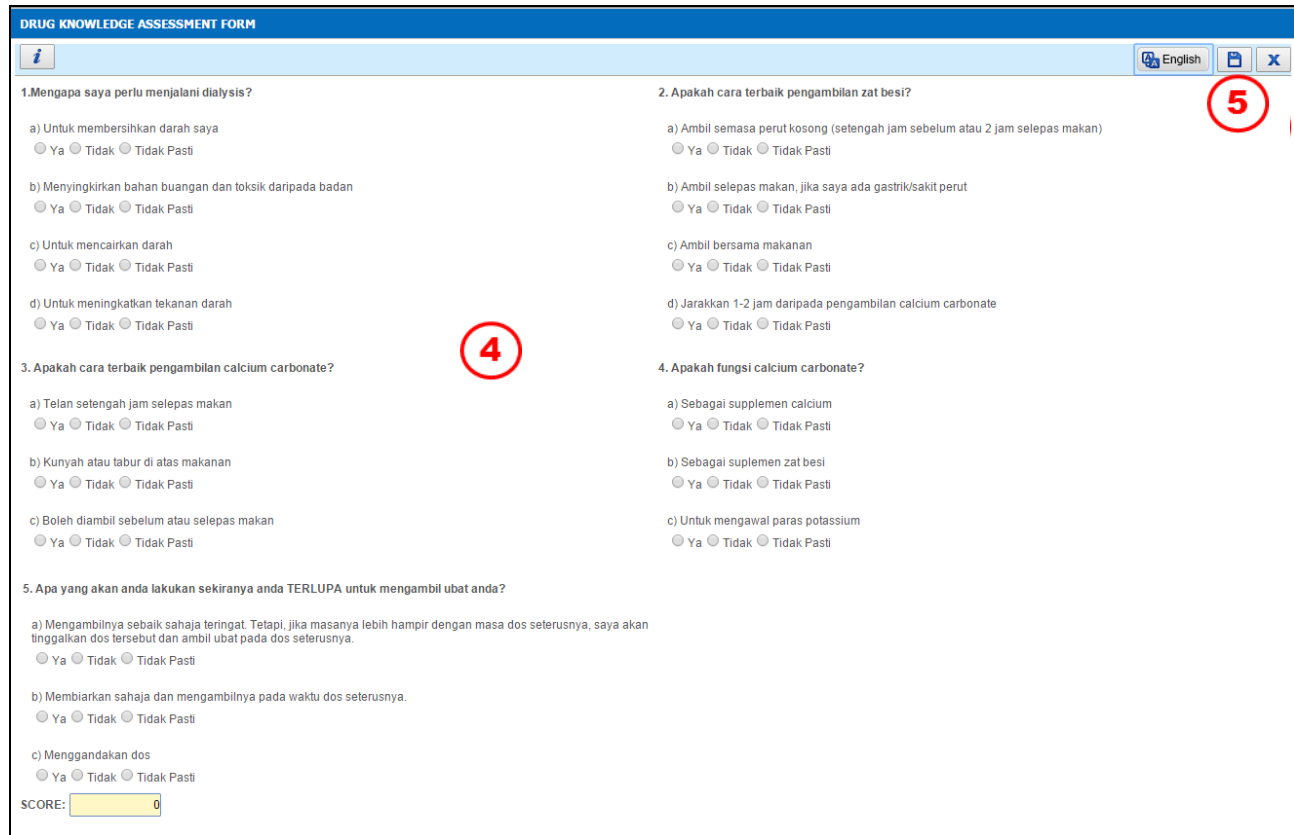
Select **Type of Dialysis** from the dropdown box

- 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 3.2.2.3-2



**DRUG KNOWLEDGE ASSESSMENT FORM**

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:

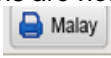
Figure 3.2.2.3-2 Specific Details - Dialysis

#### 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)



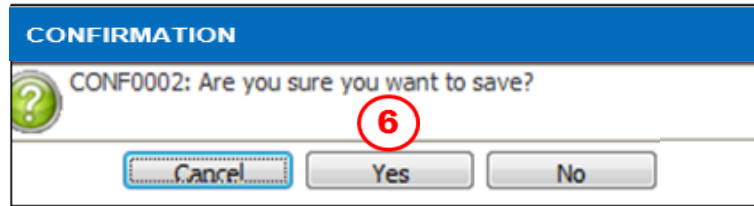
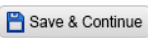


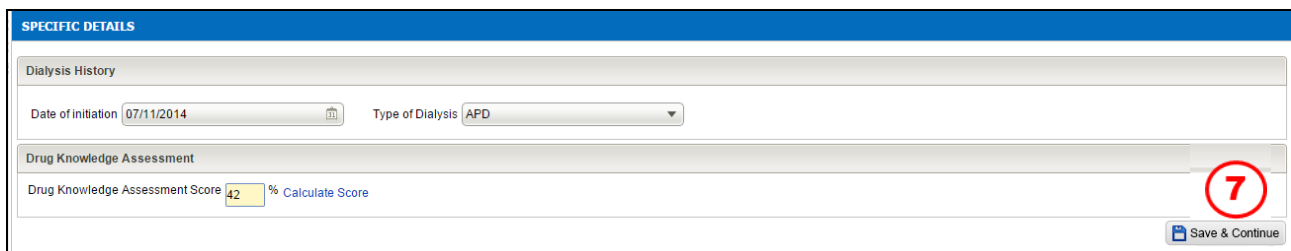
Figure 3.2.2.3-3 Confirmation Alert Message

#### STEP 6

Click on the  button to confirm save record

#### STEP 7

Click on the  button as shown in Figure 3.2.2.3-1 to save and continue with reporting section



A form titled "SPECIFIC DETAILS" with a blue header. It contains two sections: "Dialysis History" and "Drug Knowledge Assessment". The "Dialysis History" section has a "Date of Initiation" field with the value "07/11/2014" and a "Type of Dialysis" dropdown menu with the value "APD". The "Drug Knowledge Assessment" section has a "Drug Knowledge Assessment Score" field with the value "42" and a "Calculate Score" link. A red circle with the number "7" is positioned over the "Save & Continue" button at the bottom right of the form.

#### STEP 8

Click on the  button to confirm save record

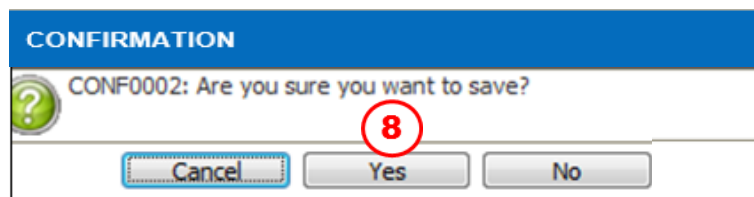



Figure 3.2.2.3-4 Confirmation Alert Message

## STEP 9

Click on the  button to confirm record

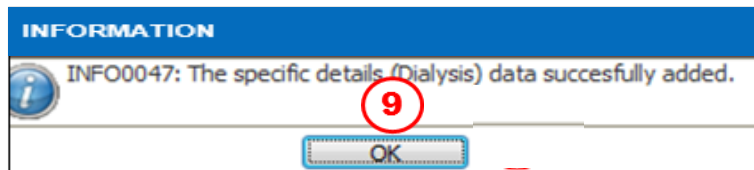


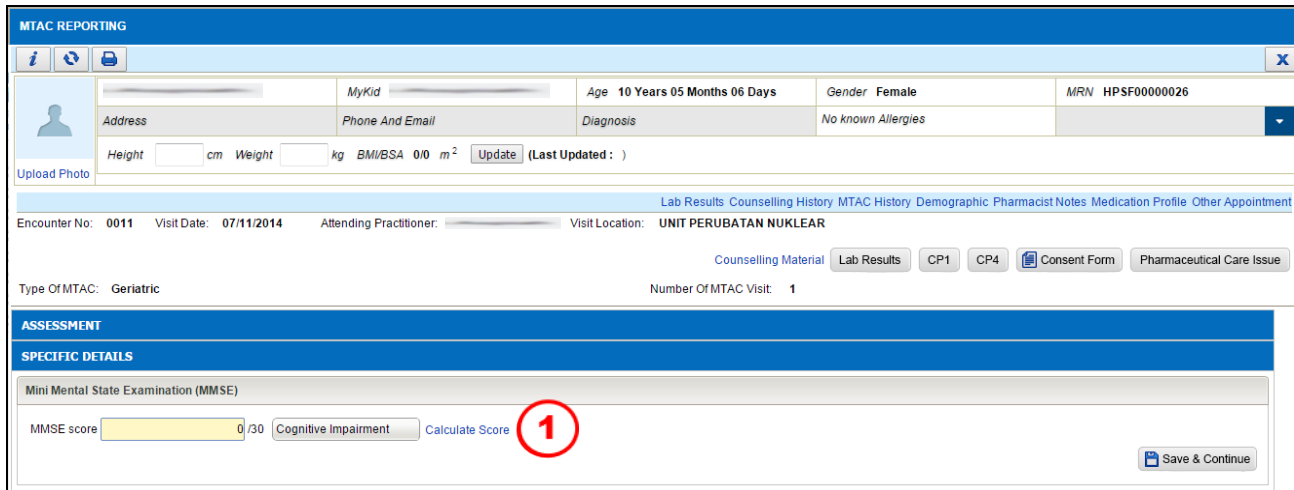
Figure 3.2.2.3-5 Information alert message

### Note

For 'Reporting' section, repeat **STEP 20 to 34** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#).

### 3.2.2.4 Geriatric

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



**MTAC REPORTING**

MyKid: [Name] Age: 10 Years 05 Months 06 Days Gender: Female MRN: HPSF00000026

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

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

Upload Photo

Lab Results Counselling History MTAC History Demographic Pharmacist Notes Medication Profile Other Appointment

Encounter No: 0011 Visit Date: 07/11/2014 Attending Practitioner: [Practitioner] Visit Location: UNIT PERUBATAN NUKLEAR

Counselling Material Lab Results CP1 CP4 Consent Form Pharmaceutical Care Issue

Type Of MTAC: Geriatric Number Of MTAC Visit: 1

**ASSESSMENT**

**SPECIFIC DETAILS**

Mini Mental State Examination (MMSE)

MMSE score: [Score] / 30 Cognitive Impairment Calculate Score **1**

Save & Continue

Figure 3.2.2.4-1 Specific Details - Geriatric

#### Note

Repeat **STEP 1 to 19** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#) before performing MTAC Reporting - Specific Details for Geriatric.

#### STEP 1

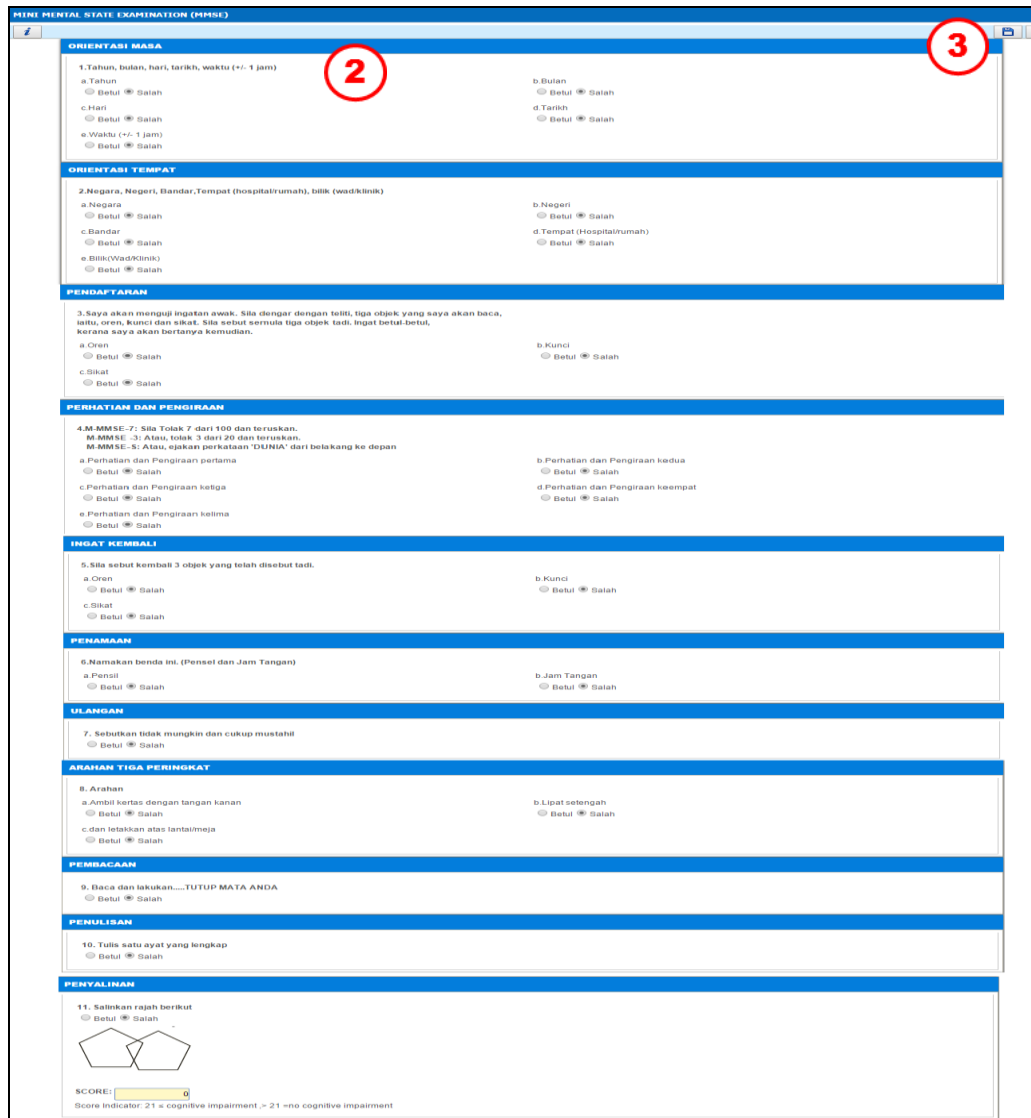
Click on the [Calculate Score](#) hyperlink for **MMSE Score** and 'Mini Mental State Examination (MMSE) – Orientasi Masa' window will be displayed as shown in Figure 3.2.2.4-2

#### STEP 2

Answer questions in **Mini Mental State Examination (MMSE)** by selecting radio button as shown in Figure 3.2.2.4-2

#### Note

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



**MINI MENTAL STATE EXAMINATION (MMSE)**

**ORIENTASI MASA**

1. Tahun, bulan, hari, tarikh, waktu (+/- 1 jam)

a. Tahun  
☐ Betul ☐ Salah

b. Bulan  
☐ Betul ☐ Salah

c. Hari  
☐ Betul ☐ Salah

d. Tarikh  
☐ Betul ☐ Salah

e. Waktu (+/- 1 jam)  
☐ Betul ☐ Salah

**ORIENTASI TEMPAT**

2. Negara, Negeri, Bandar, Tempat (hospital/umah), bilik (ward/klinc)

a. Negara  
☐ Betul ☐ Salah

b. Negeri  
☐ Betul ☐ Salah

c. Bandar  
☐ Betul ☐ Salah

d. Tempat (Hospital/umah)  
☐ Betul ☐ Salah

e. Bilik (Vad/Klinc)  
☐ Betul ☐ Salah

**PENDAFTARAN**

3. Saya akan menguji ingatan awak. Sila dengar dengan teliti, tiga objek yang saya akan baca, tulis, oron, kunci dan sikat. Sila sebut semula tiga objek tadi. Ingat betul betul kerana saya akan bertanya kemudian.

a. Oren  
☐ Betul ☐ Salah

b. Kunci  
☐ Betul ☐ Salah

c. Sikat  
☐ Betul ☐ Salah

**PERHATIAN DAN PENGIRAAN**

4. MMSE-7: Sila Tolak 7 dari 100 dan teruskan.  
M-MMSE-3: Atau, tolak 3 dari 20 dan teruskan.  
M-MMSE-5: Atau, sjaikan perkataan "DUNIA" dari belakang ke depan

a. Perhatian dan Pengiraan pertama  
☐ Betul ☐ Salah

b. Perhatian dan Pengiraan kedua  
☐ Betul ☐ Salah

c. Perhatian dan Pengiraan ketiga  
☐ Betul ☐ Salah

d. Perhatian dan Pengiraan keempat  
☐ Betul ☐ Salah

e. Perhatian dan Pengiraan kelima  
☐ Betul ☐ Salah

**INGAT KEMBALI**

5. Sila sebut kembali 3 objek yang telah disebut tadi.

a. Oren  
☐ Betul ☐ Salah

b. Kunci  
☐ Betul ☐ Salah

c. Sikat  
☐ Betul ☐ Salah

**PENAMAAN**

6. Namakan benda ini. (Pensel dan Jam Tangan)

a. Pensel  
☐ Betul ☐ Salah

b. Jam Tangan  
☐ Betul ☐ Salah

**ULANGAN**

7. Sebutkan tidak mungkin dan cukup mustahil

☐ Betul ☐ Salah

**ARAHAN TIGA PERINGKAT**

8. Arahan

a. Ambil kertas dengan tangan kanan  
☐ Betul ☐ Salah

b. Lipat setengah  
☐ Betul ☐ Salah

c. dan letakkan atas lantai/meja  
☐ Betul ☐ Salah

**PEMBACAAN**

9. Baca dan lakukan.....TUTUP MATA ANDA

☐ Betul ☐ Salah

**PENULISAN**

10. Tulis satu ayat yang lengkap

☐ Betul ☐ Salah

**PENYALINAN**

11. Salinkan rajah berikut


☐ Betul ☐ Salah

SCORE:

Score Indicator: 21 = cognitive impairment, > 21 = no cognitive impairment

Figure 3.2.2.4-2 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

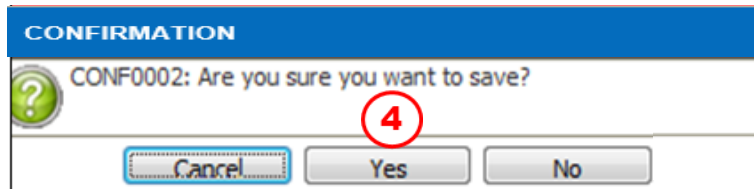

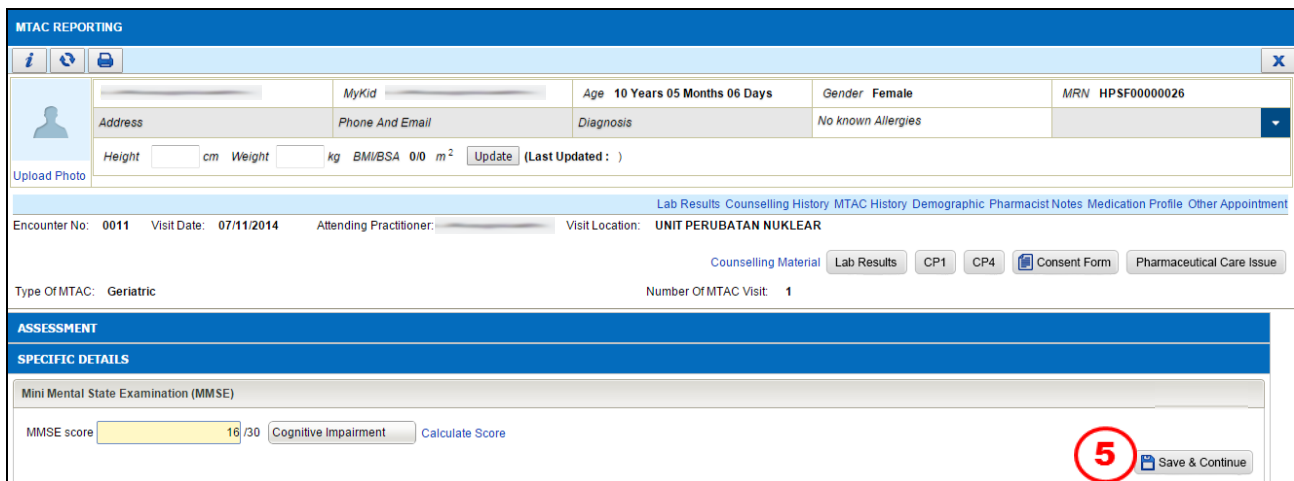


Figure 3.2.2.4-3 Confirmation Alert Message

## STEP 5

Click on the  button as shown in Figure 3.2.2.4-1 to save and continue with reporting section



**MTAC REPORTING**

MyKid: [Redacted] Age: 10 Years 05 Months 06 Days Gender: Female MRN: HPSF00000026

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: )

Upload Photo

Lab Results Counseling History MTAC History Demographic Pharmacist Notes Medication Profile Other Appointment

Encounter No: 0011 Visit Date: 07/11/2014 Attending Practitioner: [Redacted] Visit Location: UNIT PERUBATAN NUKLEAR

Counseling Material Lab Results CP1 CP4 Consent Form Pharmaceutical Care Issue

Type Of MTAC: Geriatric Number Of MTAC Visit: 1

**ASSESSMENT**

**SPECIFIC DETAILS**

Mini Mental State Examination (MMSE)

MMSE score: 16/30 Cognitive Impairment Calculate Score


**5** 

Figure 3.2.2.4-4 Specific Details - Geriatric

## STEP 6

Click on the  button to confirm save record

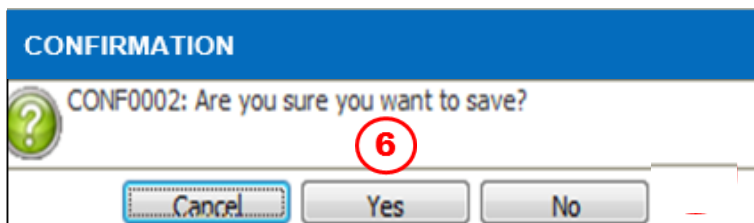


Figure 3.2.2.4-5 Confirmation Alert Message

## STEP 7

Click on the  button to confirm record

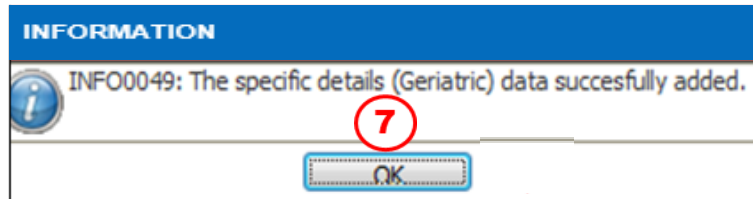


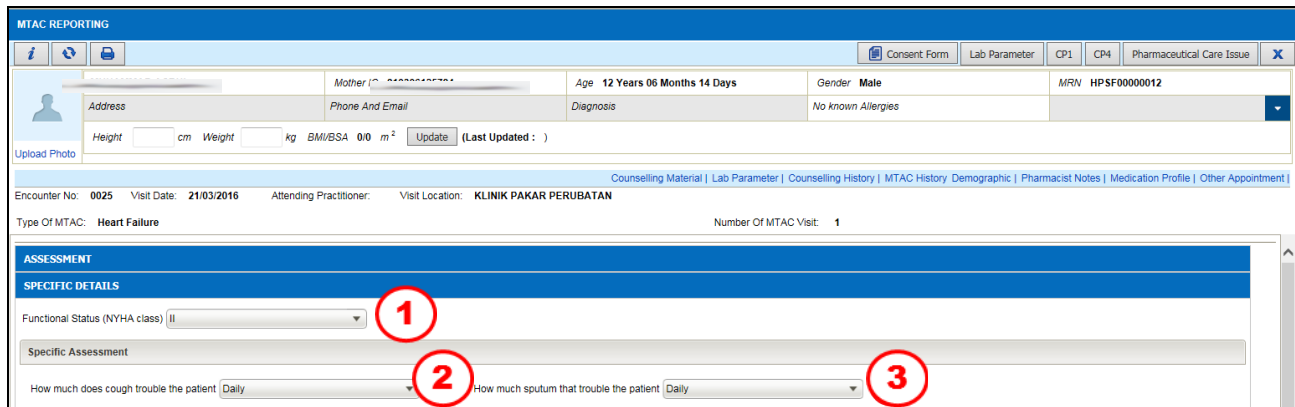
Figure 3.2.2.4-6 Information alert message

**Note**

For 'Reporting' section, repeat **STEP 20 to 34** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#).

### 3.2.2.5 Heart Failure

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



The screenshot shows the 'MTAC REPORTING' interface. At the top, there's a patient information section with fields for Address, Mother, Age (12 Years 06 Months 14 Days), Gender (Male), and MRN (HPSF00000012). Below this is a navigation bar with links like 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. The main content area is titled 'ASSESSMENT' and contains a 'SPECIFIC DETAILS' section. This section has three numbered callouts: 1 points to the 'Functional Status (NYHA class)' dropdown menu, 2 points to the 'How much does cough trouble the patient' dropdown menu, and 3 points to the 'How much sputum that trouble the patient' dropdown menu.

Figure 3.2.2.5 Specific Details - Heart Failure

#### Note

Repeat **STEP 1 to 19** 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

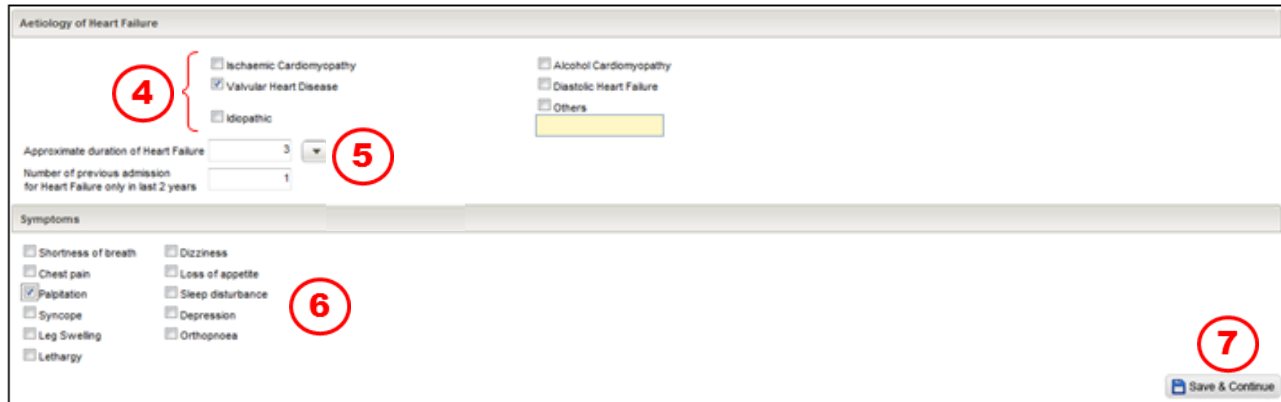
Select **How much does cough trouble the patient** from the drop down box

- 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 web form titled 'Aetiology of Heart Failure'. It contains two main sections: 'Aetiology of Heart Failure' and 'Symptoms'. In the 'Aetiology' section, there are checkboxes for 'Ischaemic Cardiomyopathy', 'Valvular Heart Disease', 'Idiopathic', 'Alcohol Cardiomyopathy', 'Diastolic Heart Failure', and 'Others'. A red circle with the number 4 is next to the 'Ischaemic Cardiomyopathy' checkbox. A red circle with the number 5 is next to the 'Approximate duration of Heart Failure' dropdown menu, which is set to '3'. Below this, there is a text input field for 'Number of previous admission for Heart Failure only in last 2 years' with the value '1'. In the 'Symptoms' section, there are checkboxes for 'Shortness of breath', 'Chest pain', 'Palpitation', 'Syncope', 'Leg Swelling', 'Lethargy', 'Dizziness', 'Loss of appetite', 'Sleep disturbance', 'Depression', and 'Orthopnoea'. A red circle with the number 6 is next to the 'Palpitation' checkbox. A red circle with the number 7 is next to the 'Save & Continue' button at the bottom right.

Figure 3.2.2.5-2 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

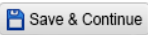
Select the check box for **Symptoms** as below:

- 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 3.2.2.5-1 to save and continue with reporting section

#### STEP 8

Click on the  button to confirm save record

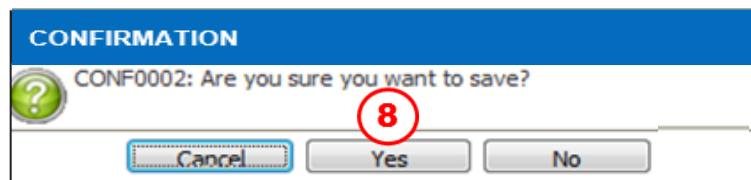



Figure 3.2.2.5-3 Confirmation Alert Message

#### STEP 9

Click on the  button to confirm record

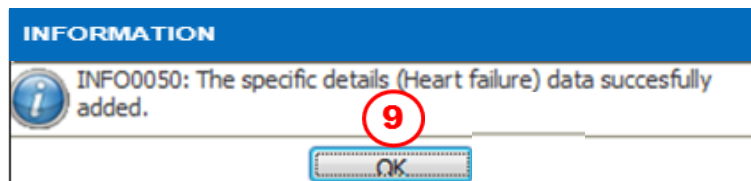


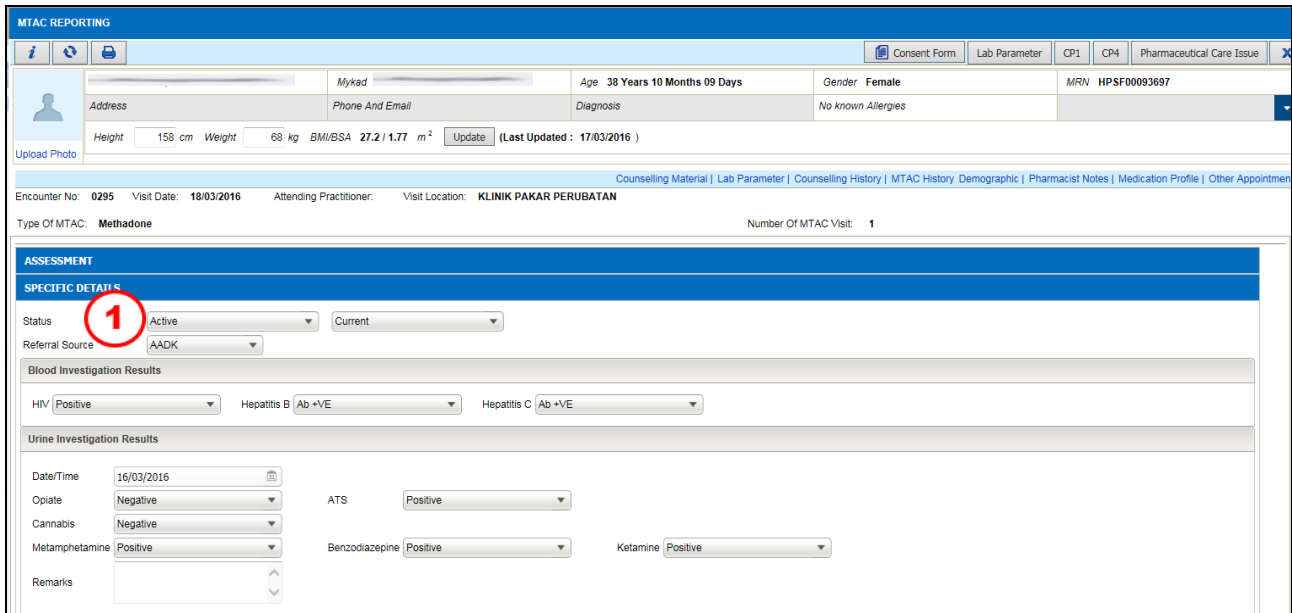
Figure 3.2.2.5-4 Information Alert Message

#### **Note**

For 'Reporting' section, repeat **STEP 19 to 33** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#)

### 3.2.2.6 Methadone

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



The screenshot shows the 'MTAC REPORTING' interface. At the top, there are tabs for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below these, patient information is displayed: Mykad, Age (38 Years 10 Months 09 Days), Gender (Female), MRN (HPSF00093697), Address, Phone And Email, Diagnosis, and No known Allergies. Physical attributes include Height (158 cm), Weight (68 kg), BMI/BSA (27.2 / 1.77 m<sup>2</sup>), and an 'Update' button. The 'Type Of MTAC' is set to 'Methadone' and the 'Number Of MTAC Visit' is '1'. The 'ASSESSMENT' section is expanded, showing 'SPECIFIC DETAILS'. The 'Status' dropdown is highlighted with a red circle and the number 1, with 'Active' selected. Other dropdowns include 'Referral Source' (AADK), 'Blood Investigation Results' (HIV: Positive, Hepatitis B: Ab +VE, Hepatitis C: Ab +VE), and 'Urine Investigation Results' (Opiate: Negative, Cannabis: Negative, Metamphetamine: Positive, ATS: Positive, Benzodiazepine: Positive, Ketamine: Positive). A 'Remarks' field is at the bottom.

Figure 3.2.2.6-1 Specific Details - Methadone

#### **Note**

Repeat **STEP 1 to 19** 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

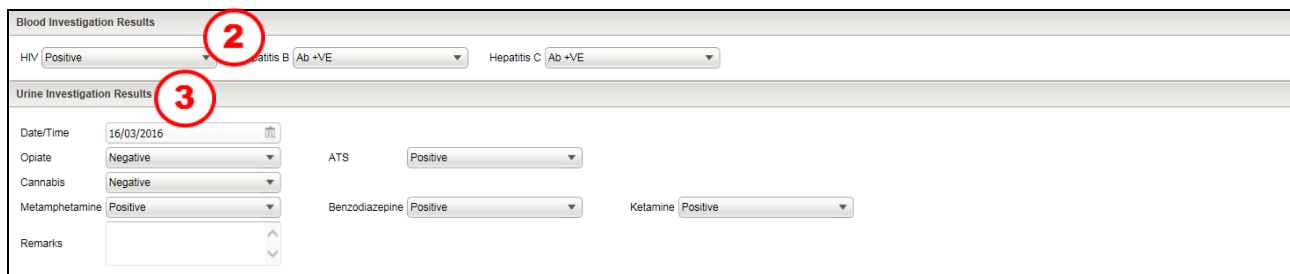
Select **Referral Source** from the drop down box

- 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 3.2.2.6-2 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**.

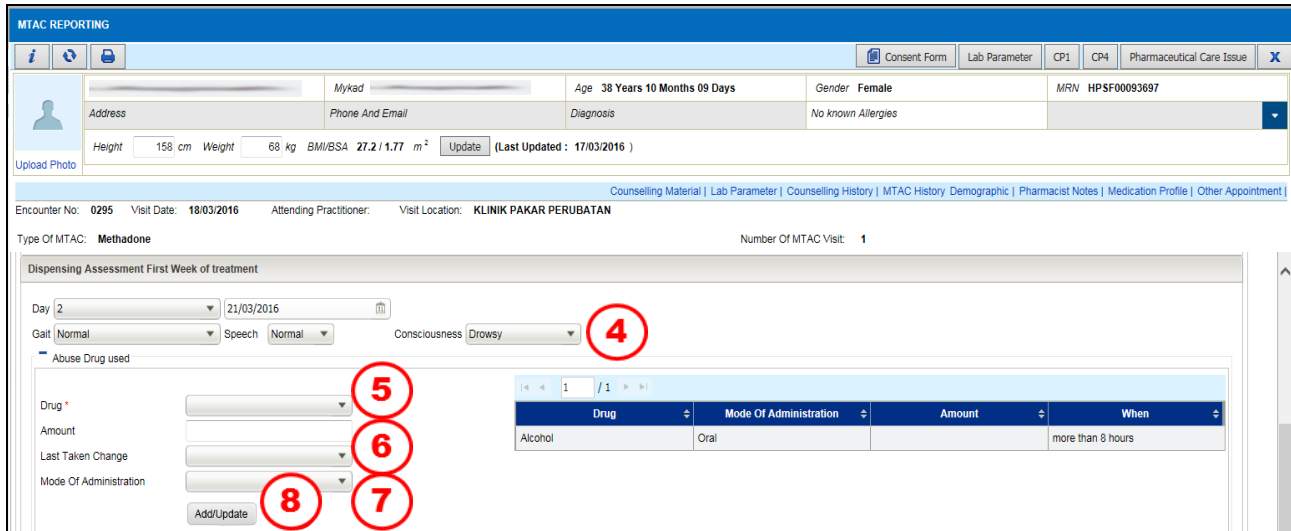
Select **Opiate**, **ATS**, **Cannabis**, **Methamphetamine**, **Benzodiazepine**, and **Ketamine** from the drop down box

- 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 21/03/2016

Gait: Normal Speech: Normal Consciousness: Drowsy

Abuse Drug used


Drug: [Redacted] Amount: [Redacted] Last Taken Change: [Redacted] Mode Of Administration: [Redacted]

Add/Update

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

Figure 3.2.2.6-3 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

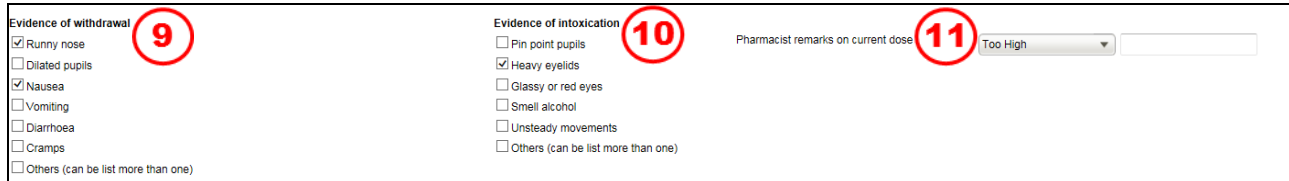
**STEP 7**

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.



The screenshot shows a form with three main sections, each marked with a red circle and a number:

- 9 Evidence of withdrawal:** Includes checkboxes for Runny nose (checked), Dilated pupils, Nausea (checked), Vomiting, Diarrhoea, Cramps, and Others (can be list more than one).
- 10 Evidence of intoxication:** Includes checkboxes for Pin point pupils, Heavy eyelids (checked), Glassy or red eyes, Smell alcohol, Unsteady movements, and Others (can be list more than one).
- 11 Pharmacist remarks on current dose:** Includes a dropdown menu with 'Too High' selected and an empty text input field.

Figure 3.2.2.6-4 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

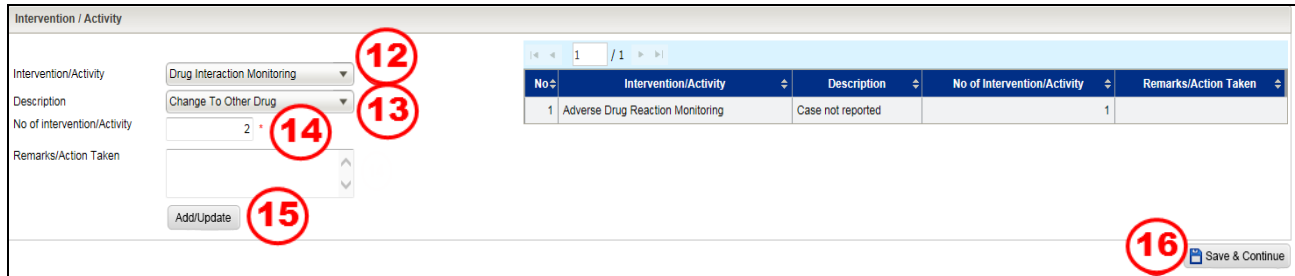
Blank fields will be enabled if user selects 'Other' from the drop down box of Evidence of withdrawal and Evidence of intoxication.

## STEP 11

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

- Sufficient
- Too High
- Too Low

## Intervention / Activity



The screenshot shows the 'Intervention / Activity' form. On the left, there are dropdown menus for 'Intervention/Activity' (labeled 12) and 'Description' (labeled 13). Below these is a text input for 'No of Intervention/Activity' (labeled 14) containing the number '2'. A text area for 'Remarks/Action Taken' is below that, with an 'Add/Update' button (labeled 15) underneath. On the right, there is a table with 5 columns: 'No', 'Intervention/Activity', 'Description', 'No of Intervention/Activity', and 'Remarks/Action Taken'. The table contains one row with the value '1' in the 'No' column and 'Adverse Drug Reaction Monitoring' in the 'Intervention/Activity' column. At the bottom right, there is a 'Save & Continue' button (labeled 16).

Figure 3.2.2.6-5 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**

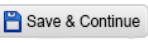
### Note

*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

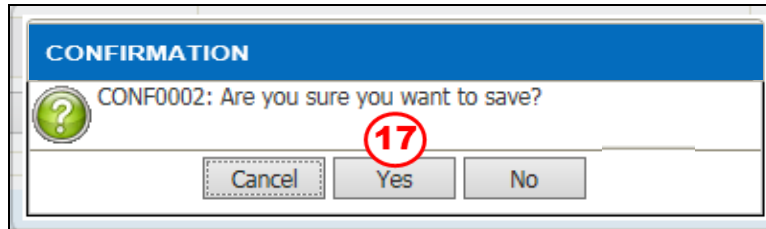


Figure 3.2.2.6-6 Confirmation Alert Message

## STEP 18

Click on the  button to add record

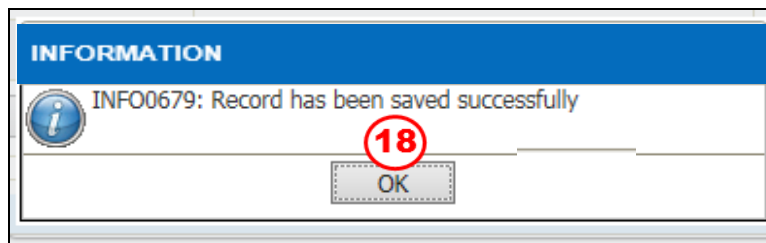


Figure 3.2.2.6-7 Information Alert Message

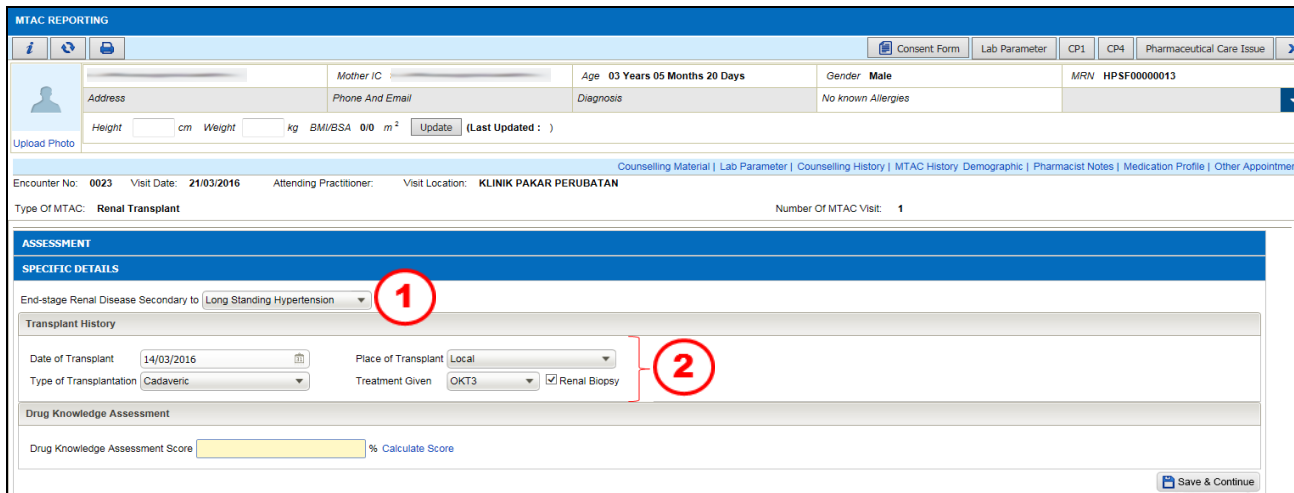
### Note

For 'Reporting' section, repeat **STEP 20 to 34** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#).



### 3.2.2.7 Renal Transplant

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



**MTAC REPORTING**

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

Address: \_\_\_\_\_ Mother IC: \_\_\_\_\_ Age: 03 Years 05 Months 20 Days Gender: Male MRN: HPSF00000013

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 (1)

**Transplant History**

Date of Transplant: 14/03/2016 (2) Place of Transplant: Local

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

**Drug Knowledge Assessment**

Drug Knowledge Assessment Score: \_\_\_\_\_ % Calculate Score

Save & Continue

Figure 3.2.2.7-1 Specific Details - Renal Transplant

#### Note

Repeat **STEP 1 to 19** 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

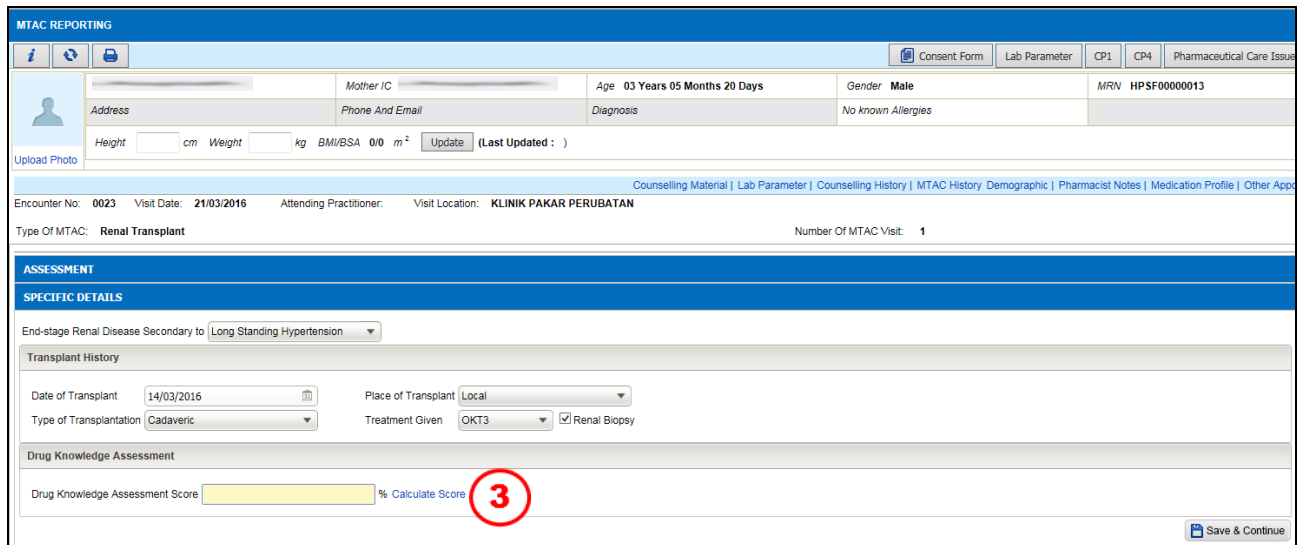
### Note

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 3.2.2.7-2




The screenshot displays the 'MTAC REPORTING' interface. The top navigation bar includes links for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. The patient information section shows details for a 03 Years 05 Months 20 Days old male patient with MRN HPSF00000013. The 'ASSESSMENT' section is active, showing 'SPECIFIC DETAILS' for a 'Renal Transplant'. The 'Transplant History' section includes fields for 'Date of Transplant' (14/03/2016), 'Place of Transplant' (Local), 'Type of Transplantation' (Cadaveric), 'Treatment Given' (OKT3), and a checked 'Renal Biopsy' box. The 'Drug Knowledge Assessment' section shows 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 located at the bottom right.

Figure 3.2.2.7-2 Specific Details - Renal Transplant


### STEP 4

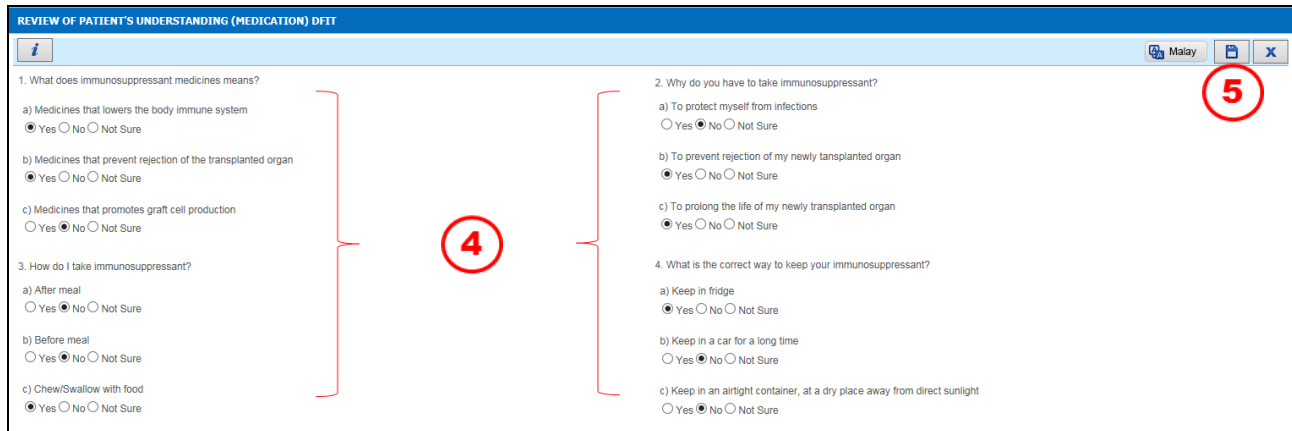
Answer all questionnaire in the **Review of Patient's Understanding** window by selecting the radio button to answer every questions

### 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) DFTT**

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

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

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

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

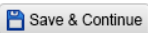
a) Keep in fridge  
☒ Yes ☐ No ☐ Not Sure

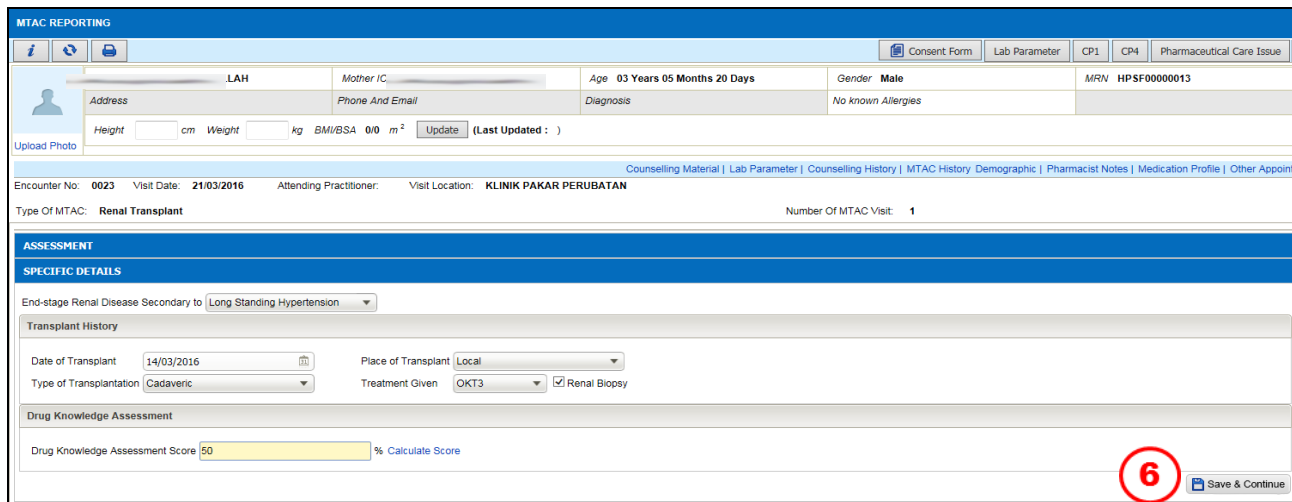
b) Keep in a car for a long time  
☐ Yes ☒ No ☐ Not Sure

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

Figure 3.2.2.7-3 Drug Knowledge Assessment

## STEP 6

Click on the  button as shown in Figure 3.2.2.7-1 to save and continue with reporting section



**MTAC REPORTING**

Consent Form Lab Parameter CP1 CP4 Pharmaceutical Care Issue

Address LAH Mother IC Age 03 Years 05 Months 20 Days Gender Male MRN HPSF00000013

Phone And Email Address Diagnosis No known Allergies

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

Upload Photo

Counseling Material | Lab Parameter | Counseling History | MTAC History | Demographic | Pharmacist Notes | Medication Profile | Other Appoint

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 60 % Calculate Score

Save & Continue

Figure 3.2.2.7-4 Specific Details - Renal Transplant

## STEP 7

Click on the  button to confirm save record

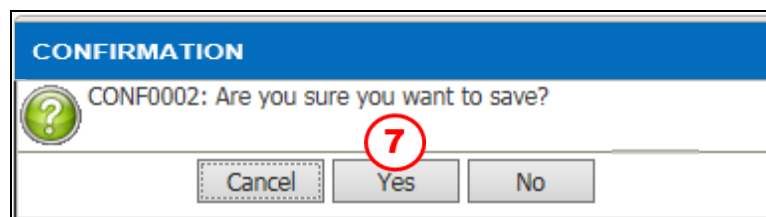



Figure 3.2.2.7-5 Confirmation Alert Message

## STEP 8

Click on the  button to confirm record

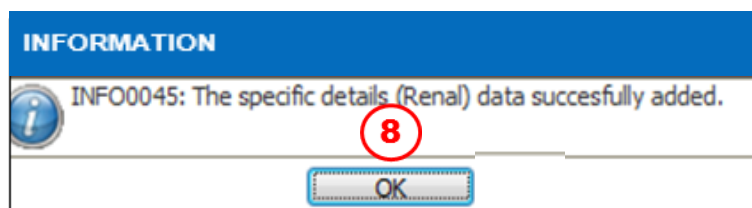


Figure 3.2.2.7-5 Information Alert Message

### Note

For 'Reporting' section, repeat **STEP 20 to 34** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#).

### 3.2.2.8 Respiratory

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

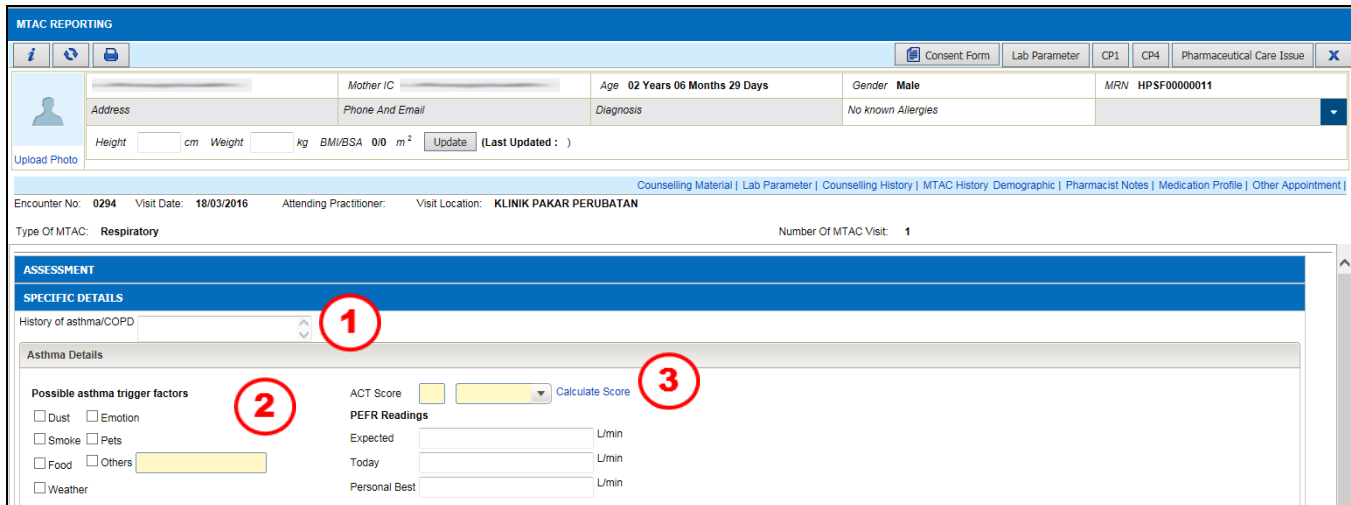


Figure 3.2.2.8-1 Specific Details – Asthma Details

#### Note

Repeat **STEP 1 to 18** 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

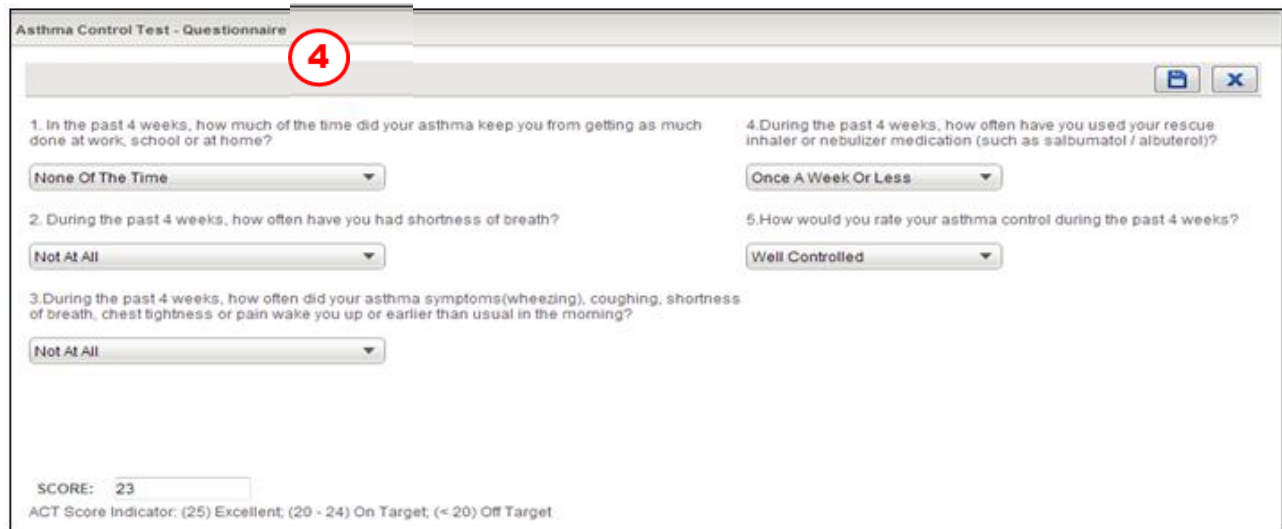
Blank field will be enabled only if user selects 'Others' from the check box.

### 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 3.2.2.8-2

### STEP 4

Select the drop down box to answer the questionnaire



The screenshot shows the 'Asthma Control Test - Questionnaire' window. A red circle with the number 4 highlights the title bar. The questionnaire consists of five questions with dropdown menus for answers:

- 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)

At the bottom, the score is displayed as 23, and the ACT Score Indicator is shown as (25) Excellent; (20 - 24) On Target; (< 20) Off Target.

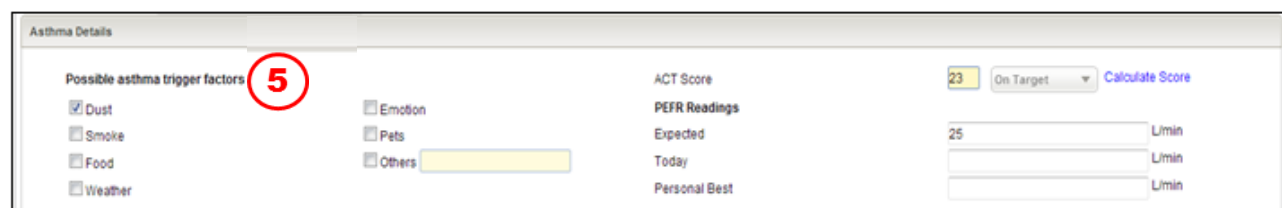
Figure 3.2.2.8-2 Asthma Control Test - Questionnaire

### Note

Score will be automatically calculated and automatically displayed.

### STEP 5

Enter **Asthma Details** as Figure 3.2.2.8-3



The screenshot shows the 'Asthma Details' window. A red circle with the number 5 highlights the title bar. The window is divided into two main sections:

- Possible asthma trigger factors:** A list of checkboxes for Dust (checked), Smoke, Food, Weather, Emotion, Pets, and Others (with a text input field).
- ACT Score and PEFR Readings:** The ACT Score is 23, with a dropdown menu set to 'On Target' and a 'Calculate Score' button. Below this, the PEFR Readings section includes input fields for Expected (25), Today, and Personal Best, each with a 'Limin' label.

Figure 3.2.2.8-3 Specific Details – Asthma Details

## STEP 6

Click on the [Calculate Score](#) hyperlink and window of 'CAT Score – Questionnaire' will be display as per Figure 3.2.2.8-4

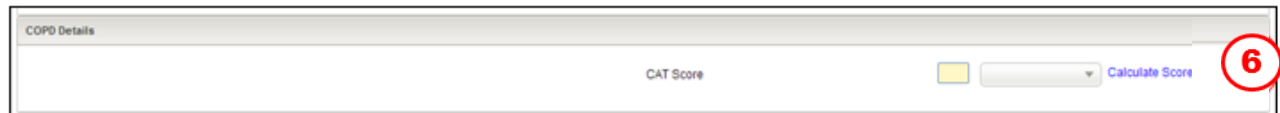


Figure 3.2.2.8-4 Specific Details – COPD Details

## STEP 7

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

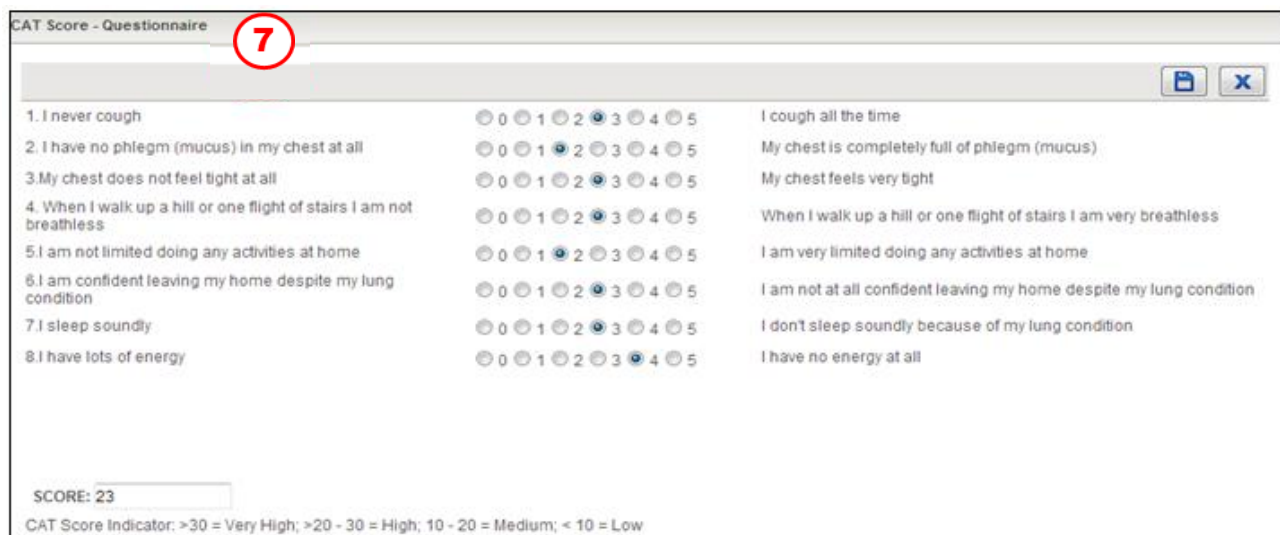


Figure 3.2.2.8-5 CAT Score – Questionnaire

## STEP 8

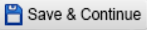
Click on the [Calculate Score](#) hyperlink of Before and After Counseling to do questionnaire as below:

- MDI Score
- Turbuhaler Score
- Accuhaler Score
- Handihaler Score
- MDI and Spacer Score



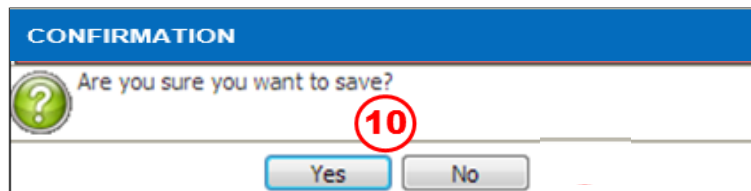
**Figure 3.2.2.8-6 Inhaler Technique Understanding**

#### STEP 9

Click on the  button as shown in Figure 3.2.2.8-6 to save and continue with reporting section


#### STEP 10

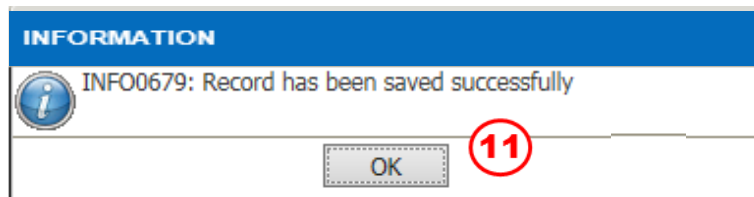
Click on the  button to confirm save order



**Figure 3.2.2.8-7 Confirmation Alert Message**

#### STEP 11

Click on the  button to confirm record



**Figure 3.2.2.8-7 Information Alert Message**

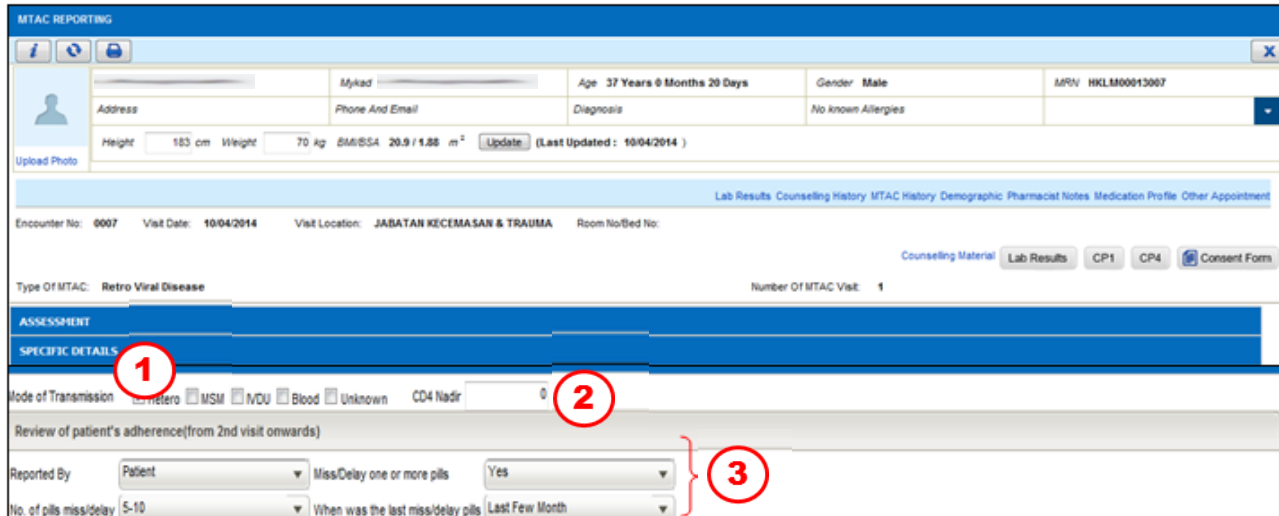
#### **Note**

For 'Reporting' section, repeat **STEP 19 to 33** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#).



### 3.2.2.9 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. The top section contains patient demographics: Mykad, Age (37 Years 0 Months 20 Days), Gender (Male), MRN (HKL00013007), Address, Phone And Email, Diagnosis, and No known Allergies. Below this is a section for physical attributes: Height (183 cm), Weight (70 kg), BMI/BSA (20.9 / 1.88 m<sup>2</sup>), and an Update button. The next section shows Encounter No (0007), Visit Date (10/04/2014), Visit Location (JABATAN KECEMASAN & TRAUMA), and Room No/Bed No. There are buttons for Counseling Material, Lab Results, CP1, CP4, and Consent Form. The Type Of MTAC is set to Retro Viral Disease, and the Number Of MTAC Visit is 1. The ASSESSMENT section is expanded, showing SPECIFIC DETAILS. In this section, 'Mode of Transmission' has checkboxes for Hetero, MSM, IVDU, Blood, and Unknown. The 'CD4 Nadir' field is highlighted with a red circle and the number 2. Below this is a section for 'Review of patient's adherence (from 2nd visit onwards)'. This section includes a 'Reported By' dropdown menu (highlighted with a red circle and the number 3), a 'Miss/Delay one or more pills' dropdown (set to Yes), and a 'When was the last miss/delay pills' dropdown (set to Last Few Month). There are also fields for 'No. of pills miss/delay' (5-10) and 'Last Few Month'.

Figure 3.2.2.9-1 Specific Details - Retro Viral Disease

#### Note

Repeat **STEP 1 to 19** 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

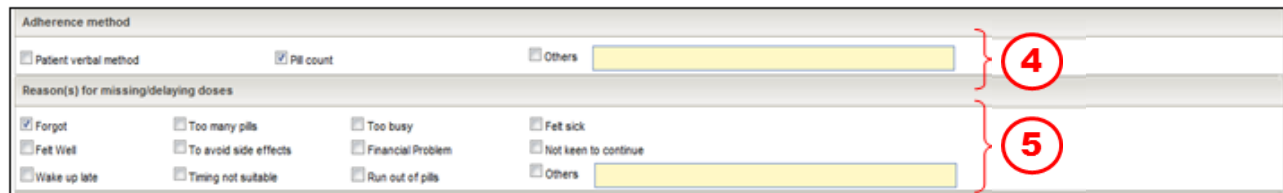


Figure 3.2.2.9-2 Specific Details - Retro Viral Disease

**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.

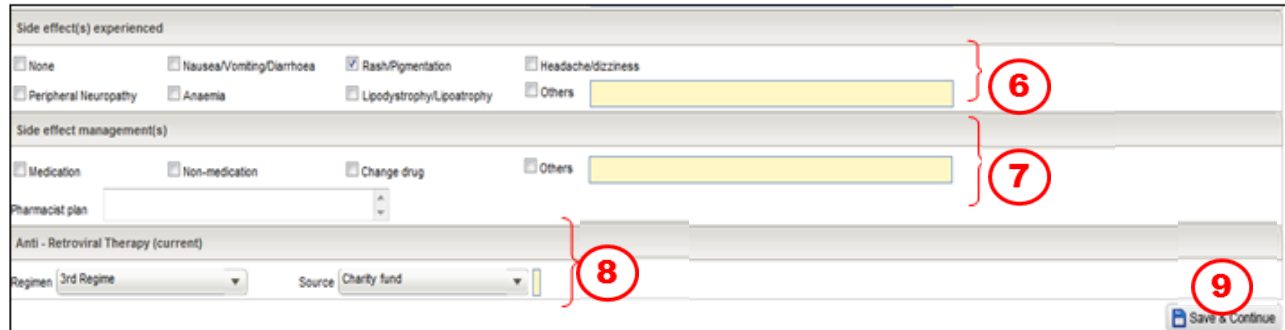
**STEP 5**

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 3.2.2.9-3 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

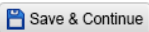
Select **Source** from the drop down box

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

#### **Note**

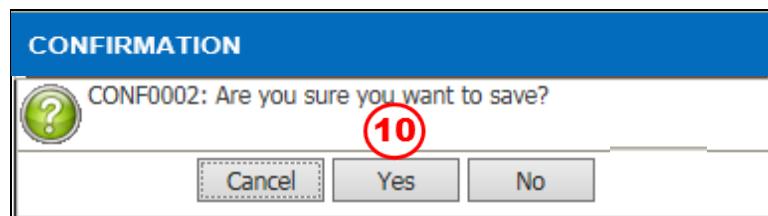
*Blank field will be enabled if user selects 'Others' from the check box.*

#### **STEP 9**

Click on the  button as shown in Figure 3.2.2.9-3 to save and continue with reporting section


#### **STEP 10**

Click on the  button to confirm save record



**Figure 3.2.2.9-4 Confirmation Alert Message**

#### **STEP 11**

Click on the  button to confirm record

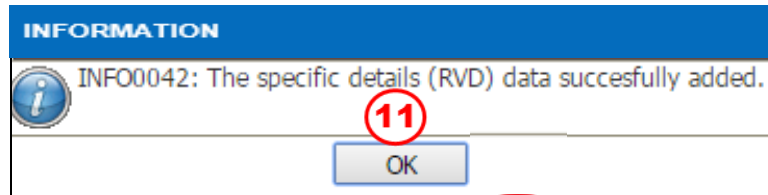


Figure 3.2.2.9-4 Information Alert Message

**Note**

For 'Reporting' section, repeat **STEP 20 to 34** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#).

### 3.2.2.10 Warfarin

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

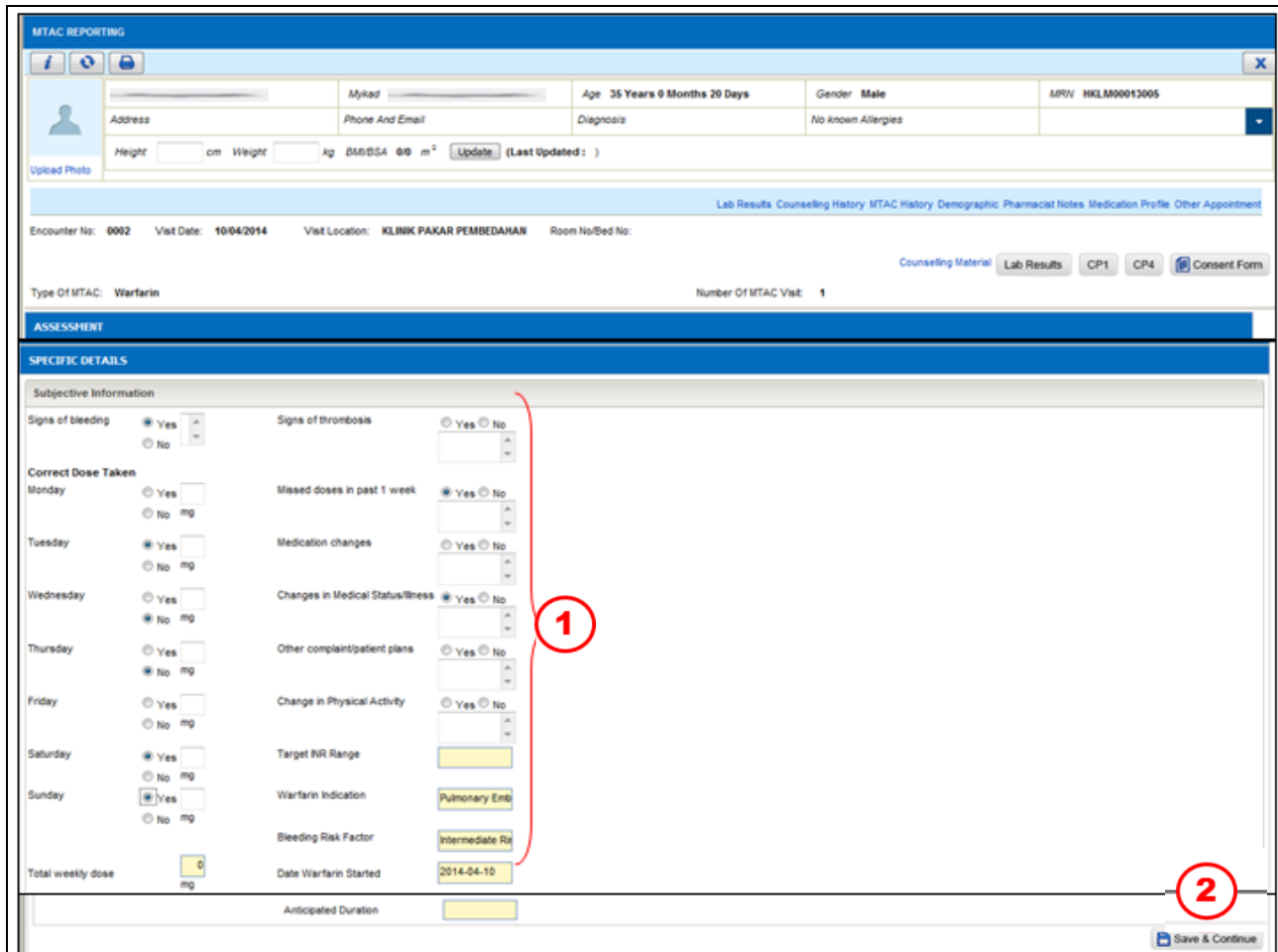


Figure 3.2.2.10-1 Specific Details - Warfarin

#### Note

Repeat **STEP 1 to 18** as in 3.2.1 [Create New MTAC Reporting with No Specific Details](#) before perform MTAC Reporting - Specific Details for Warfarin.

#### STEP 1

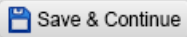
For **Subjective Information**, select 'Yes' or 'No' radio buttons for below:

- **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**

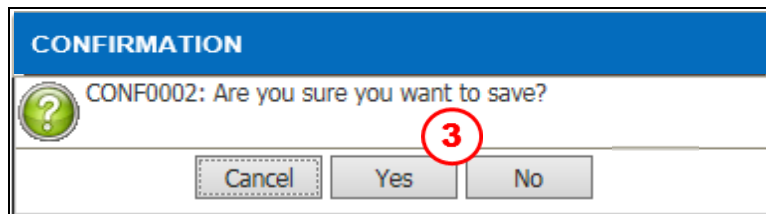
- Enter remark (if available) and dosage for **Correct Dose Taken** at the blank field provided
- **Total weekly dose, Target INR Range, Warfarin Indication, Bleeding Risk Factor, Date Warfarin Started and Anticipated Duration** will be automatically displayed as shown in Figure 3.2.2.10-1.

**STEP 2**

Click on the  button to save and continue with reporting section

**STEP 3**

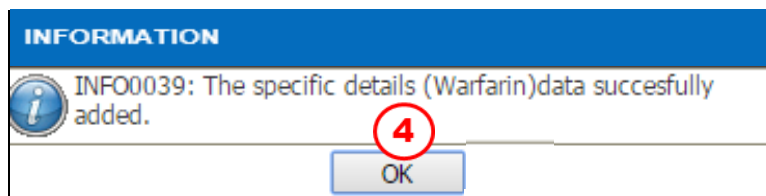
Click on the  button to confirm save record



**Figure 3.2.2.10-2 Confirmation Alert Message**

**STEP 4**

Click on the  button to confirm record



**Figure 3.2.2.10-3 Information Alert Message**

**Note**

For 'Reporting' section, repeat **STEP 20 to 34** 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	Inpatient	<a href="#">Click Here</a>	12	CDR Dispensing	<a href="#">Click Here</a>
2	CDR Order	<a href="#">Click Here</a>	13	Methadone Dispensing	<a href="#">Click Here</a>
3	TDM Order	<a href="#">Click Here</a>	14	PN Dispensing	<a href="#">Click Here</a>
4	PN Order	<a href="#">Click Here</a>	15	Order Management	<a href="#">Click Here</a>
5	IV Order	<a href="#">Click Here</a>	16	Patient Management	<a href="#">Click Here</a>
6	Prepacking	<a href="#">Click Here</a>	17	Radiopharmaceutical	<a href="#">Click Here</a>
7	Galenical	<a href="#">Click Here</a>	18	Outpatient	<a href="#">Click Here</a>
8	MTAC	<a href="#">Click Here</a>	19	Special Drug Request	<a href="#">Click Here</a>
9	ADR & DAC	<a href="#">Click Here</a>	20	MAR	<a href="#">Click Here</a>
10	Medication Counselling	<a href="#">Click Here</a>	21	DICE	<a href="#">Click Here</a>
11	Ward Pharmacy	<a href="#">Click Here</a>	22		