



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

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

<b>Version</b>	<b>: 12<sup>th</sup> Edition</b>
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## 1.0 Introduction

### 1.1 Overview of PhIS

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

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

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

### 1.2 Purpose and Objectives

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

User will understand the following activities in detail:

- MTAC Reporting

### 1.3 Organised Sections

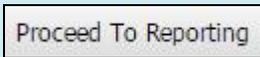
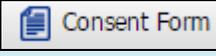
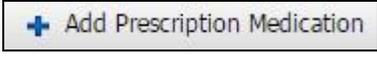
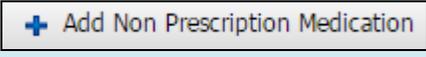
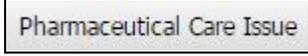
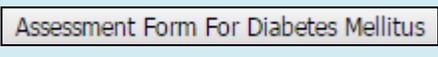
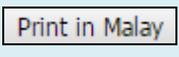
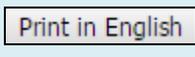
These are the sections within this document:

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

## 2.0 Application Standard Features

### 2.1 PhIS Legend

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

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

**Note**

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

## 2.2 Latest Enhancement and Updates

Latest Functions	Page
Combine screen for MTAC Order at MTAC Reporting Screen. No More MTAC Order Sub Menu	Related screen
<p><b>CP1</b></p> <p>Change from merged Past Medical History to individual table:</p> <ol style="list-style-type: none"> <li>i. Past Medication - CP1</li> <li>ii. Non-Prescription Medication (including Herbal/Vitamin/Herbal/Vitamin/Another Supplement) - CP1</li> </ol> <p>Column for i) and ii) should include:</p> <ol style="list-style-type: none"> <li>a) Original Rx no.</li> <li>b) Order details (like in preparation screen)</li> <li>c) Supply details</li> <li>d) Remark/Balance/Comments</li> </ol> <p>List of medication to be included in all 2 table in the printed report will be indicated by a checkbox</p>	41
<p><b>Assessment</b></p> <ol style="list-style-type: none"> <li>a. Change 'Comorbidity' from check box selection into drop down menu with History field (free text 500 characters) - For Old data, Comorbidity History will be empty</li> </ol>	27
<ol style="list-style-type: none"> <li>b. Diagnostic test change to be in 1 box only (2000 char)</li> </ol>	27
<p><b>New MTAC -Cardiovascular Care Bundle(CCB)</b> Add specific detail for MTAC Type = CCB</p>	91
<p>New screenshot-Remove mandatory field for adherence score</p>	30
<p>New screen for TDM specific details ; Haemophilia, Psoriasis, Respiratory, Talasemia and warfarin</p>	51-91
<p>Added notes for MTAC Order virtual session</p>	13
<p>Added notes for MTAC reporting</p>	29
<p>Added Vital Sign topic</p>	50-52
<p>Added MyMAAT topic</p>	52-56
<p>Add screenshot and notes for specific details-Renal Failure</p>	81-84
<p>Add screenshot and notes for specific details-CKD</p>	54-57
<p>Add screenshot and notes for specific details- Dialysis</p>	63-66

## 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

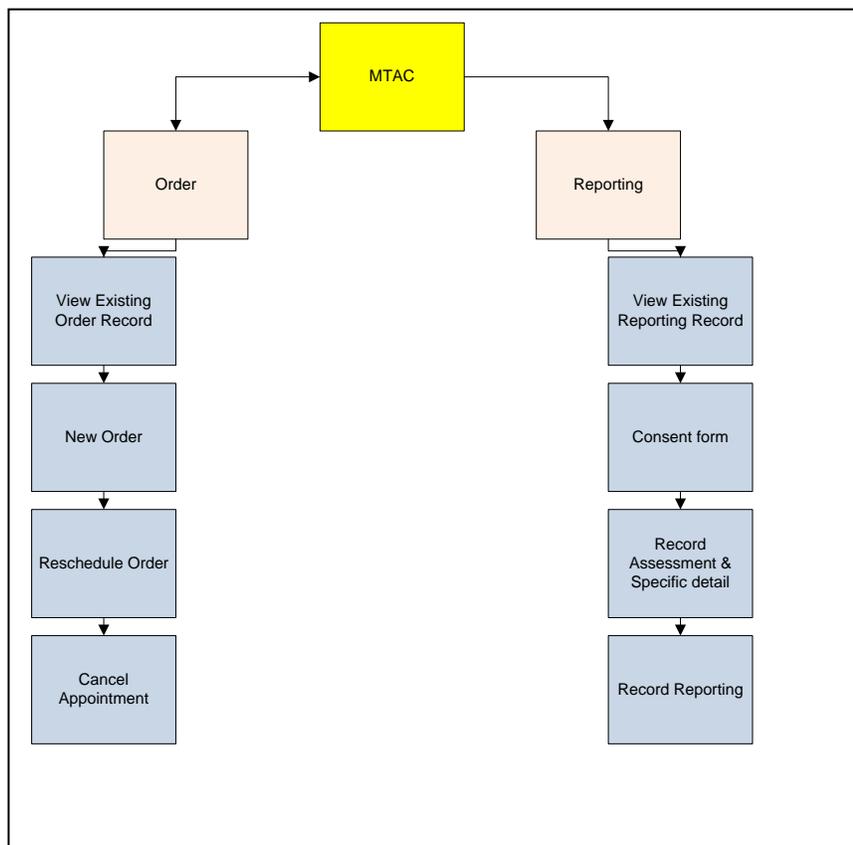


Figure 3.0-1

### Functional Description:

#### MTAC Reporting

MTAC Reporting is to record the type of MTAC for counselling and to schedule appointment dates. Reporting is used to record assessment, specific details and report of counselling

There are ten (8) types of MTAC with No Specific Details

1. Cardiac Rehab Program



2. Chronic Pain
3. Gastrohepatology
4. Hepatitis
5. Neurology
6. Osteoporosis
7. Psychiatry
8. Rheumatology

There are ten (14) 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
11. Cardiovascular Care Bundle
12. Hemophilia
13. Psoriasis
14. Thalassemia

### 3.1 MTAC

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

#### 3.1.1 View Existing Order at MTAC Reporting

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

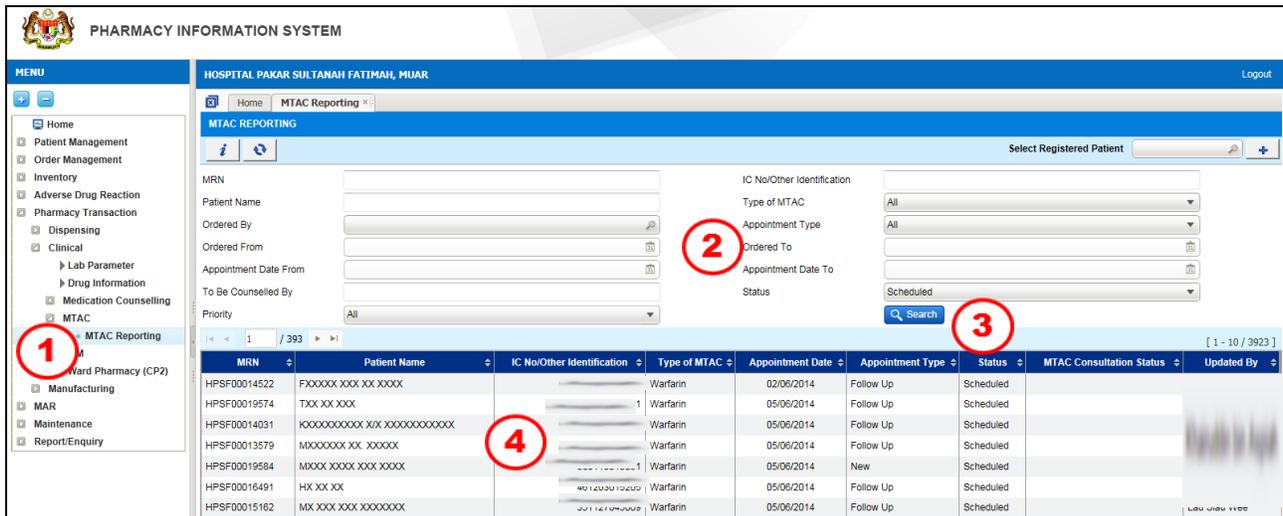


Figure 3.1.1-1 MTAC Reporting Listing Page

#### STEP 1

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

#### STEP 2

Search 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 From	Appointment Date From	Able to filter and search by appointment date before
To Be Counselling by	To Be Counselling by	Able to filter and search by to be counselling by
Priority	- All - Urgent - Routine	Able to filter and search by priority
ID No/ Other Identification	Identification Number	Allow to search by full or partial ID Number
Type of MTAC	- All - Cardiac Rehab Program	Able to filter and search by type of MTAC order

	<ul style="list-style-type: none"> <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> <li>-Thalassemia</li> </ul>	
Appointment Type	<ul style="list-style-type: none"> <li>- All</li> <li>- Follow Up</li> <li>- New</li> </ul>	Able to filter and search by appointment type
Ordered to	Ordered to	Able to filter and search by ordered to
Appointment Date To	Appointment Date To	Able to filter and search by appointment date the latest
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

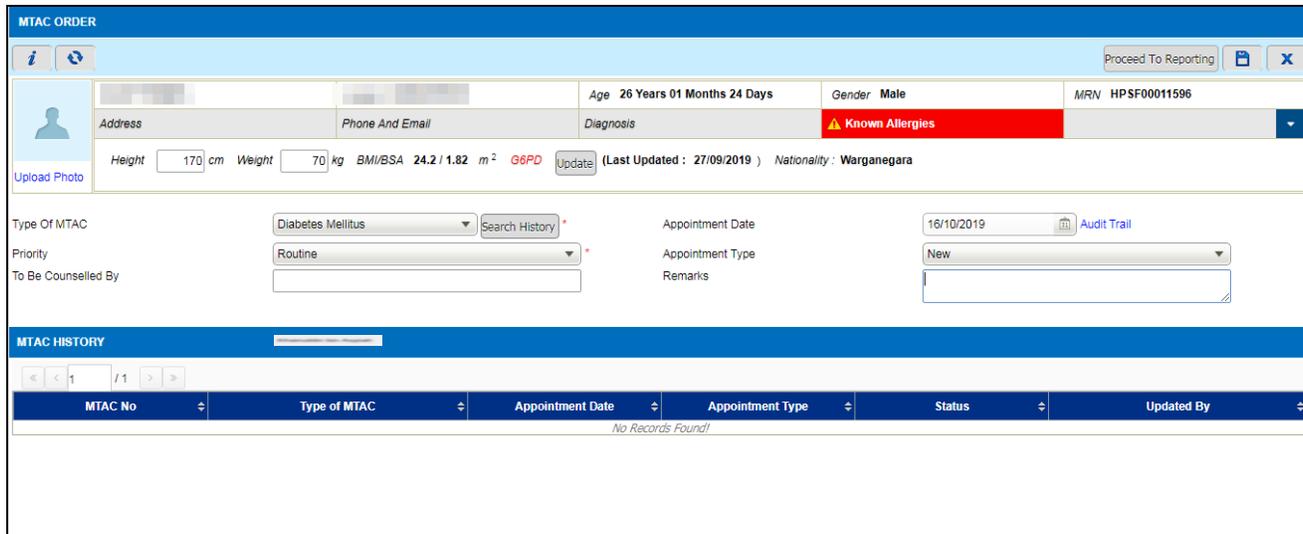
**Note**

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



The screenshot displays the 'MTAC ORDER' form. At the top, there are navigation icons and a 'Proceed To Reporting' button. The patient banner includes fields for Name, Address, Phone And Email, Age (26 Years 01 Months 24 Days), Gender (Male), and MRN (HPSF00011596). A red banner indicates 'Known Allergies'. Below this, physical attributes like Height (170 cm), Weight (70 kg), BMI/BSA (24.2 / 1.82 m<sup>2</sup>), and G6PD are shown, along with an 'Update' button and 'Last Updated' date (27/09/2019). The form also includes fields for 'Type Of MTAC' (Diabetes Mellitus), 'Priority' (Routine), 'Appointment Date' (16/10/2019), 'Appointment Type' (New), and 'Remarks'. At the bottom, there is an 'MTAC HISTORY' table with columns for MTAC No, Type of MTAC, Appointment Date, Appointment Type, Status, and Updated By. The table currently shows 'No Records Found!'.

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:
  - a) **Monitoring Parameter**
    - Patient's laboratory test results and standard parameter results for laboratory test
  - b) **Counselling History**
    - Patient's previous medication counselling history records
  - c) **MTAC History**
    - Patient's previous MTAC History records
  - d) **Demographic**
    - Patient's demographic details
  - e) **Pharmacist Notes**
    - Pharmacist notes according to type of service such as CP1, CP2, MTAC, TDM and etc
  - f) **Medication Profile**

- *Patient's current medication and previous medication history records*

g) **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	IC No/Other Identification	Type of MTAC	Appointment Date	Appointment Type	Status	MTAC Consultation Status	Updated By	Virtual Session
HPSF00002944			Warfarin	05/06/2014	Follow Up	Scheduled			No
HPSF00019583			Warfarin	05/06/2014	Follow Up	Scheduled			No
HPSF00019585			Warfarin	05/06/2014	Follow Up	Scheduled			No

Figure 3.1.2-1 MTAC Reporting Listing Page

**STEP 1**

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

**STEP 2**

Click on the button to search for registered patient at the

Patient MRN	Patient Name	IC No/Other Identification
HPSF00305652	TEST SASH C	
HPSF00305672	SASHA TEST 1	
HPSF00305673	SASHAA TEST 2	
HPSF00305677	SASHA TEST 3	

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

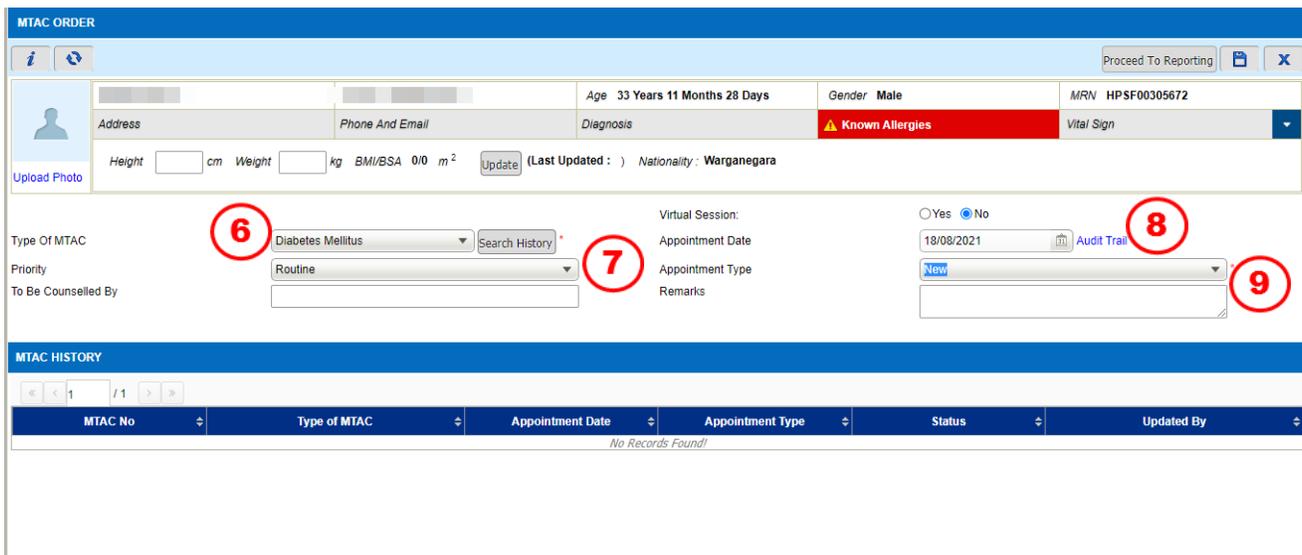
**Table 3.1.2-1**

**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



**MTAC ORDER**

Proceed To Reporting

Age 33 Years 11 Months 28 Days Gender Male MRN HPSF00305672

Address Phone And Email Diagnosis **Known Allergies** Vital Sign

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

Type Of MTAC **6** Diabetes Mellitus Search History \* Virtual Session:  Yes  No **8**

Priority Routine **7** Appointment Date 18/08/2021 Audit Trail

To Be Counseled By Appointment Type New **9** Remarks

**MTAC HISTORY**

No Records Found!

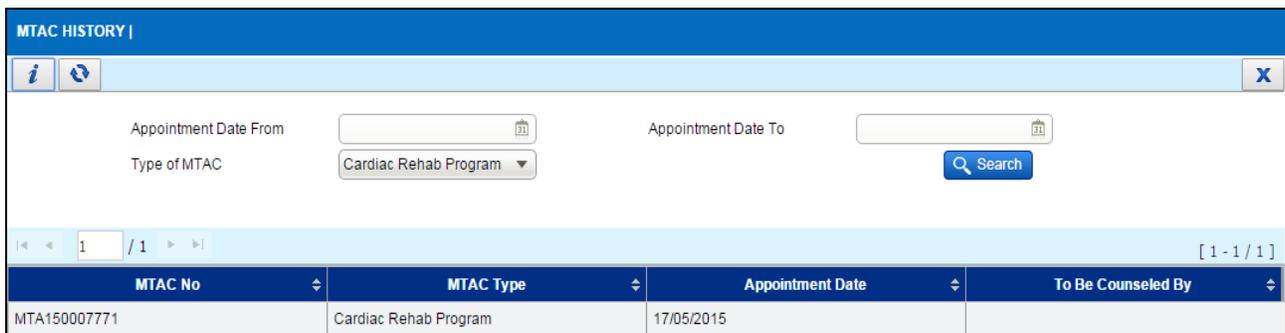
Figure 3.1.2-3 MTAC Order

**STEP 6**

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

**Note**

- Virtual session radio button to be selected if a virtual MTAC Order session is being ordered
- **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.



**MTAC HISTORY**

Appointment Date From Appointment Date To

Type of MTAC Cardiac Rehab Program Search

1 / 1 [ 1 - 1 / 1 ]

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
- Follow Up

**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' as below:
  - Target INR Range
  - Date Warfarin Started
  - Warfarin Indication
  - Anticipated Duration
  - Bleeding Risk Factor
  - Time in Therapeutic Range (TTR)
- User can click on the  button to save the MTAC Order and system will proceed to 'MTAC Reporting' window.
- Assessment section is automatically copied from the previous/latest visit.
- 'Specific details' will be automatically copied from the latest record only for the same **Type of MTAC**.

Figure 3.1.2-5 MTAC Order

**STEP 10**

Click on the  button to save the record

**STEP 11**

Click on the  button to confirm saving of order

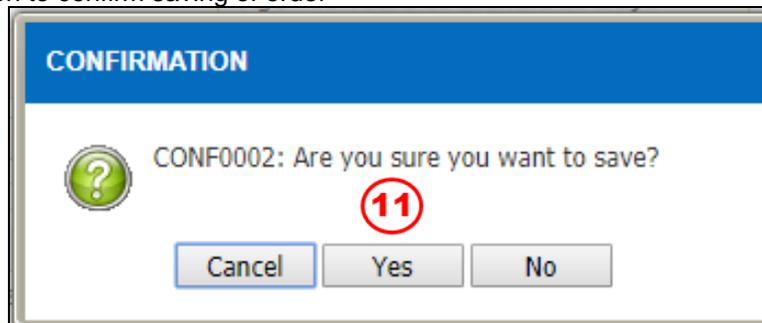


Figure 3.1.2-6 Confirmation Alert Message

**STEP 12**

Click on the  button to confirm record

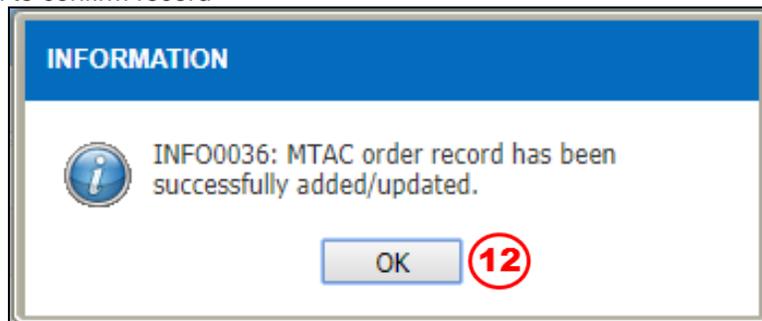


Figure 3.1.2-7 Information Alert Message

**STEP 13**

Click on the  button to proceed to reporting screen 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**

Proceed To Reporting [Edit] [Close]

Patient: [Name] Age 33 Years 11 Months 28 Days Gender Male MRN HPSF00305672 **1**  
 Address [Address] Phone And Email [Phone] Diagnosis [Diagnosis] **Known Allergies** Vital Sign [Vital Sign]  
 Height [ ] cm Weight [ ] kg BMI/BSA 0/0 m<sup>2</sup> [Update] (Last Updated : ) Nationality : Warganegara

MTAC Order No: MTA210004814 Virtual Session:  Yes  No **2**  
 Type Of MTAC: Diabetes Mellitus Appointment Date: 18/08/2021 [Audit Trail]  
 Priority: Routine Appointment Type: New  
 To Be Counselling By: [ ] Remarks: [ ]  
 Ordered By: [ ] Ordered Date/Time: 18/08/2021 06:46  
 Status: Scheduled

**MTAC HISTORY**

MTAC No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
MTA210004814	Diabetes Mellitus	18/08/2021	New	Scheduled	

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 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**

Proceed To Reporting [Save] [Close] **3**

Patient: [Name] Age 33 Years 11 Months 28 Days Gender Male MRN HPSF00305672  
 Address [Address] Phone And Email [Phone] Diagnosis [Diagnosis] **Known Allergies** Vital Sign [Vital Sign]  
 Height [ ] cm Weight [ ] kg BMI/BSA 0/0 m<sup>2</sup> [Update] (Last Updated : ) Nationality : Warganegara

MTAC Order No: MTA210004814 Virtual Session:  Yes  No  
 Type Of MTAC: Diabetes Mellitus Appointment Date: 19/08/2021 [Audit Trail]  
 Priority: Routine Appointment Type: New  
 To Be Counselling By: [ ] Remarks: [ ]  
 Ordered By: [ ] Ordered Date/Time: [ ]  
 Status: Scheduled

**MTAC HISTORY**

MTAC No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
MTA210004814	Diabetes Mellitus	18/08/2021	New	Scheduled	

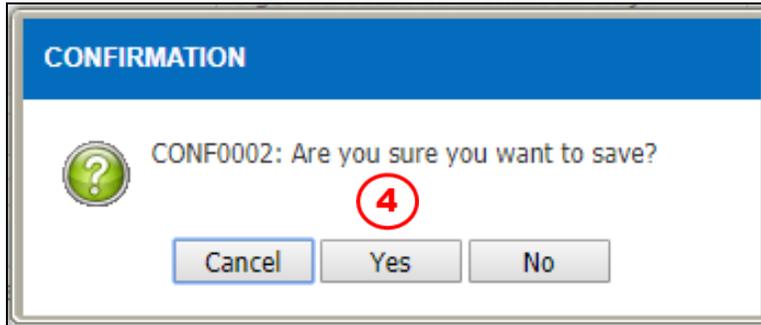
Figure 3.1.3-2 MTAC Order

**STEP 3**

Click on the  button to save the record

**STEP 4**

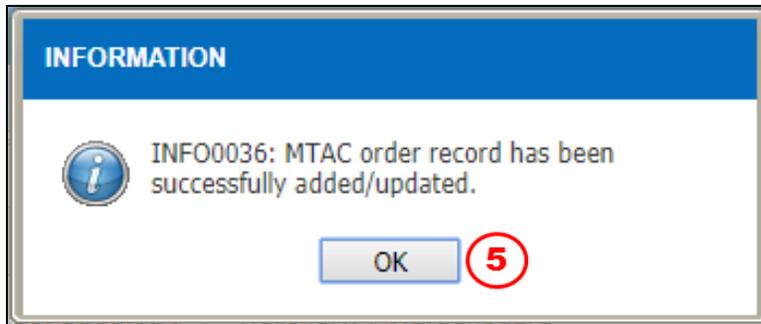
Click on the  button to confirm saving of order



**Figure 3.1.3-3 Confirmation alert message**

**STEP 5**

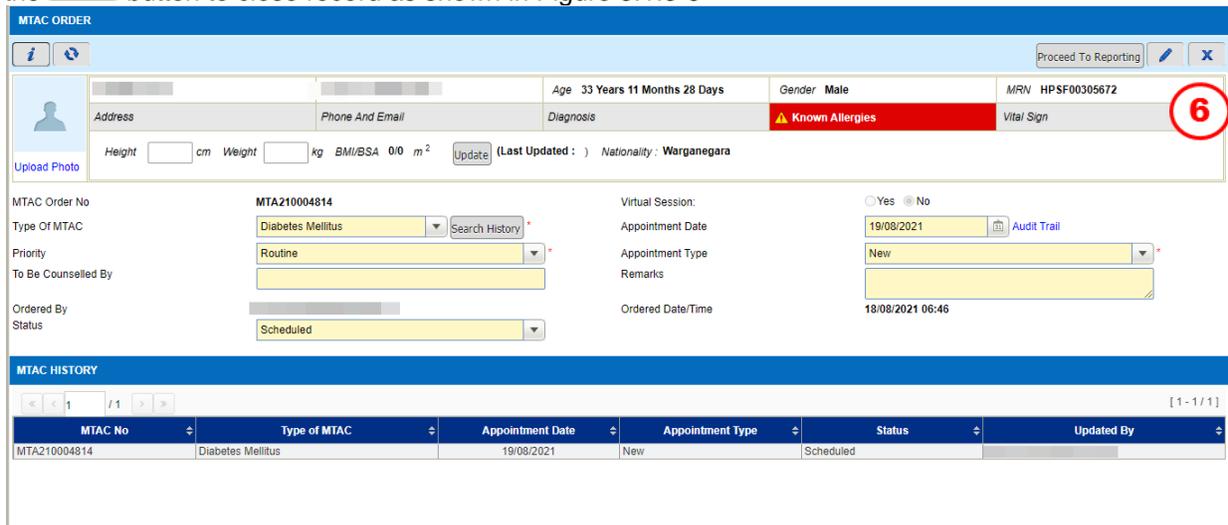
Click on the  button to confirm record



**Figure 3.1.3-4 Information alert message**

**STEP 6**

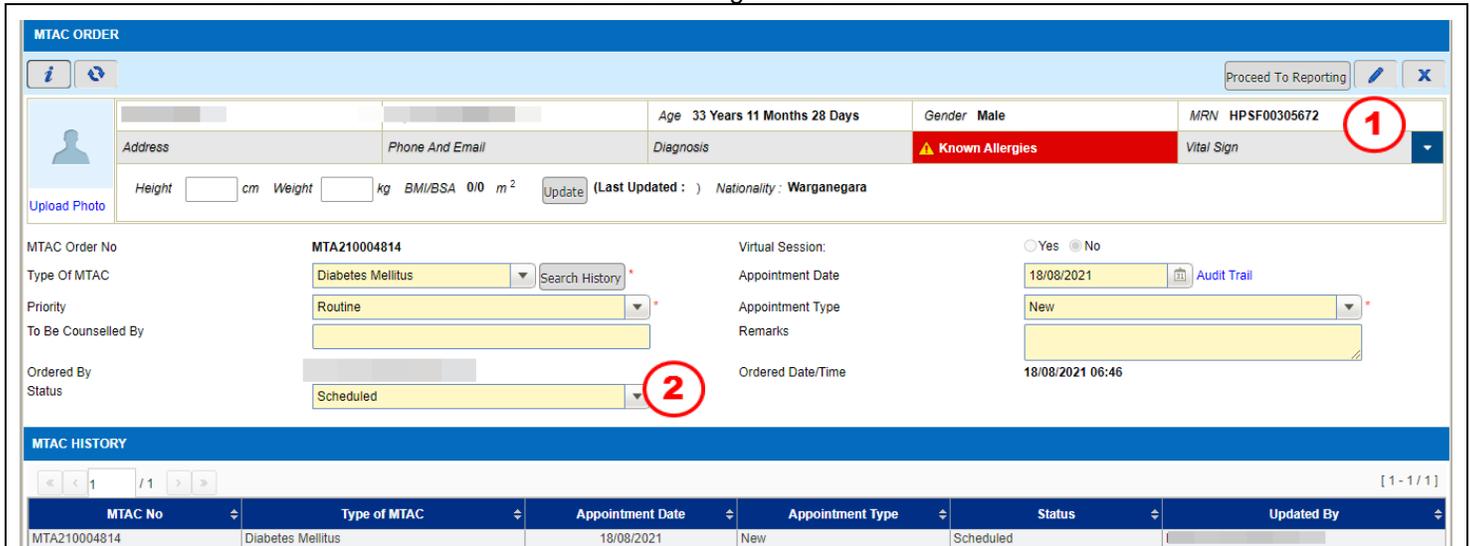
Click on the  button to close record as shown in Figure 3.1.3-5



**Figure 3.1.3-5 MTAC Order**

### 3.1.4 Cancel MTAC Order

This function is used to cancel an existing MTAC order



**MTAC ORDER**

Proceed To Reporting [Edit] [Close]

Age 33 Years 11 Months 28 Days Gender Male MRN HPSF00305672 **1**

Address Phone And Email Diagnosis **Known Allergies** Vital Sign

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

MTAC Order No MTA210004814 Virtual Session:  Yes  No

Type Of MTAC Diabetes Mellitus [Search History] Appointment Date 18/08/2021 [Audit Trail]

Priority Routine [ ] Appointment Type New [ ]

To Be Counseled By [ ] Remarks [ ]

Ordered By [ ] Ordered Date/Time 18/08/2021 06:46

Status Scheduled **2**

**MTAC HISTORY**

MTAC No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
MTA210004814	Diabetes Mellitus	18/08/2021	New	Scheduled	

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.



**CANCEL REMARKS**

[Save] [Close]

[Text Input Field] **3** **4**

Figure 3.1.4-2 Cancel Remarks

**STEP 3**

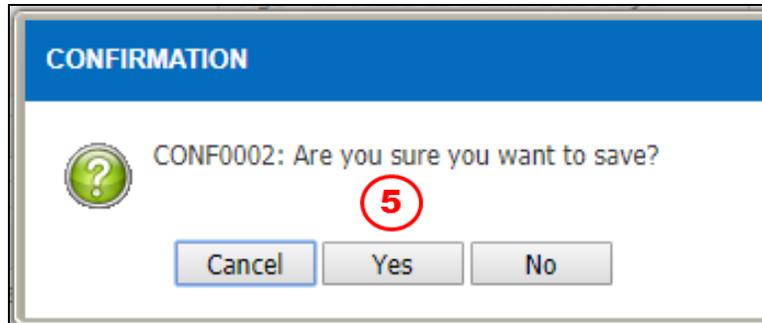
Enter **Cancel Remarks** and save the record

**STEP 4**

Click on the  button to save record

**STEP 5**

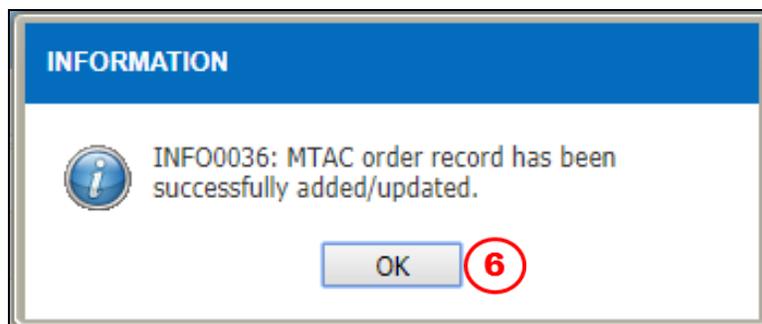
Click on the  button to confirm saving of order



**Figure 3.1.4-3 Confirmation Alert Message**

**STEP 6**

Click on the  button to confirm record



**Figure 3.1.4-4 Information Alert Message**

### 3.2 MTAC Reporting

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

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

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

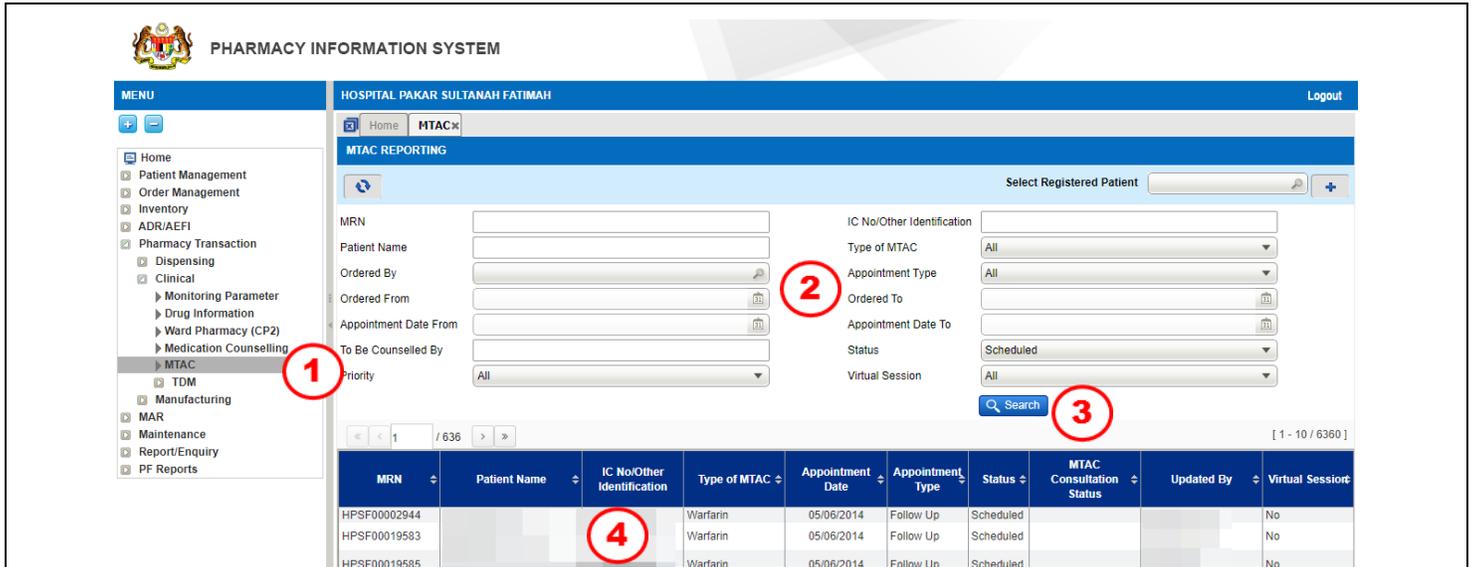


Figure 3.2.1-1 MTAC Reporting Listing Page

**STEP 1**

Click on 'Pharmacy Transaction' menu followed by 'Clinical' then 'MTAC' 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 From	Appointment Date From	Able to filter and search by appointment date before
To Be Counselling by	To Be Counselling by	Able to filter and search by to be counselling by
Priority	- All - Urgent - Routine	Able to filter and search by priority
ID No/ Other	Identification Number	Allow to search by full or partial ID Number

Identification		
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> <li>-Thalassemia</li> </ul>	Able to filter and search by type of MTAC order
Appointment Type	<ul style="list-style-type: none"> <li>- All</li> <li>- Follow Up</li> <li>- New</li> </ul>	Able to filter and search by appointment type
Ordered to	Ordered to	Able to filter and search by ordered to
Appointment Date To	Appointment Date To	Able to filter and search by appointment date the latest
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 3.2.1-1**

**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 click at  and the 'Consent Form' window will be displayed as shown in Figure 3.2.1-2

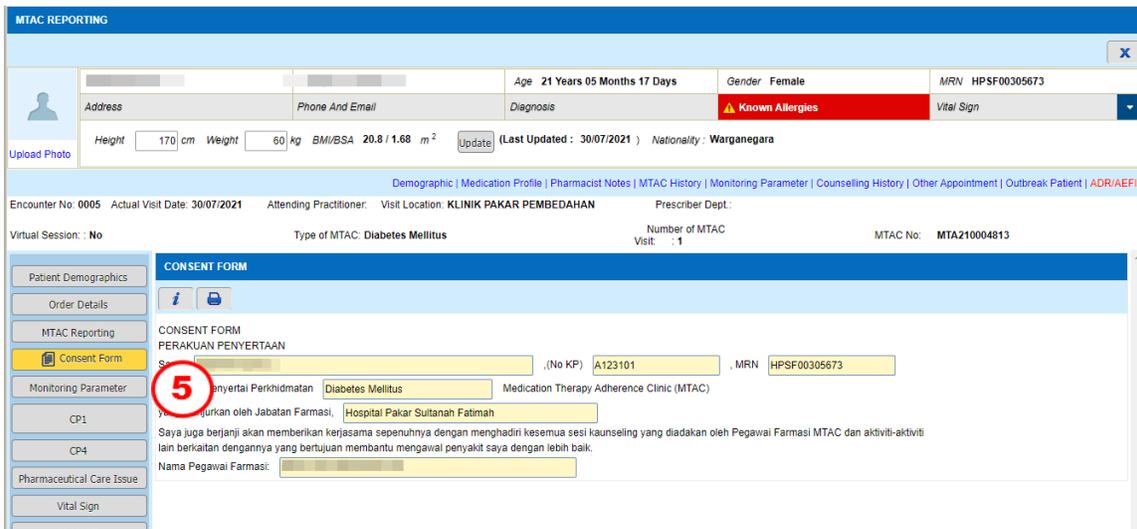


Figure 3.2.1-2 Consent Form

**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

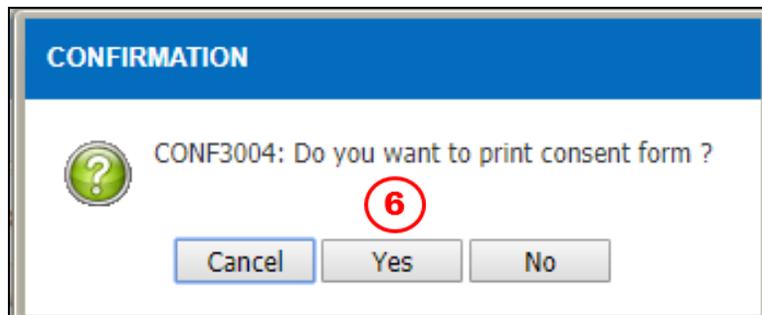
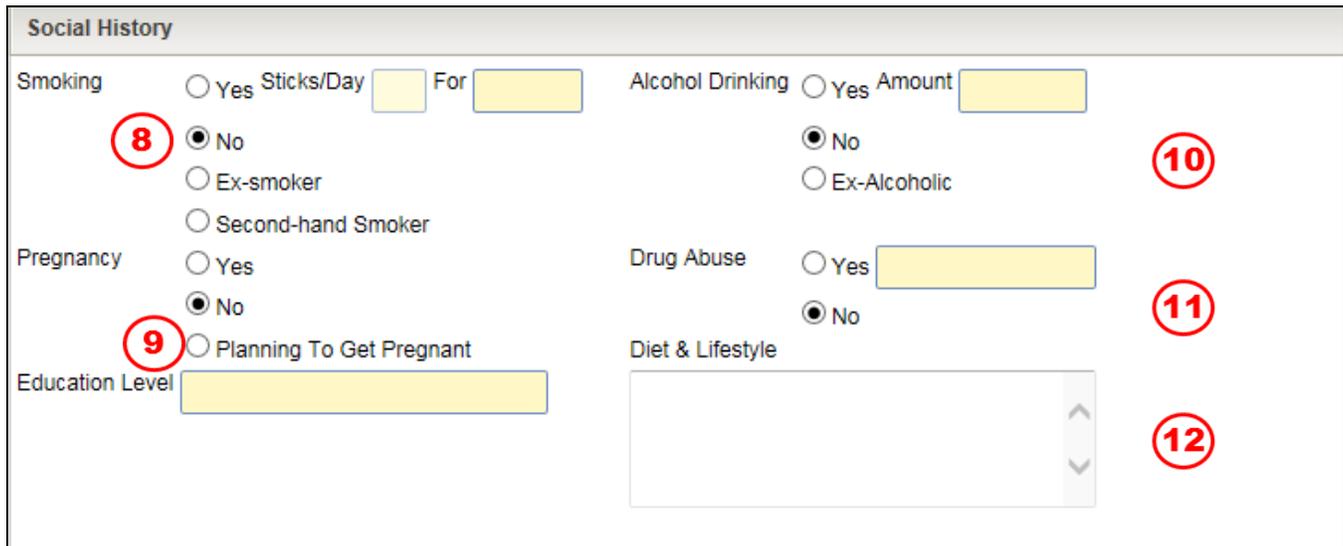


Figure 3.2.1-3 Print Report Alert Message

## Social History

### STEP 7

Enter **Estimated Dry Body Weight in Kg**



**Social History**

Smoking  Yes Sticks/Day  For   No  Ex-smoker  Second-hand Smoker

Pregnancy  Yes  No  Planning To Get Pregnant

Education Level

Alcohol Drinking  Yes Amount   No  Ex-Alcoholic

Drug Abuse  Yes   No

Diet & Lifestyle

Figure 3.2.1-6 MTAC Reporting – Assessment on Social History

### STEP 8

Select on **Smoking** radio button

- Yes
- No
- Ex-smoker
- Second-hand Smoker

### Note

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

### STEP 9

Select on **Pregnancy** radio button

- Yes
- No
- Planning to Get Pregnant

### STEP 10

Select on **Alcohol Drinking** radio button

- Yes
- No
- Ex-Alcoholic

### 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*

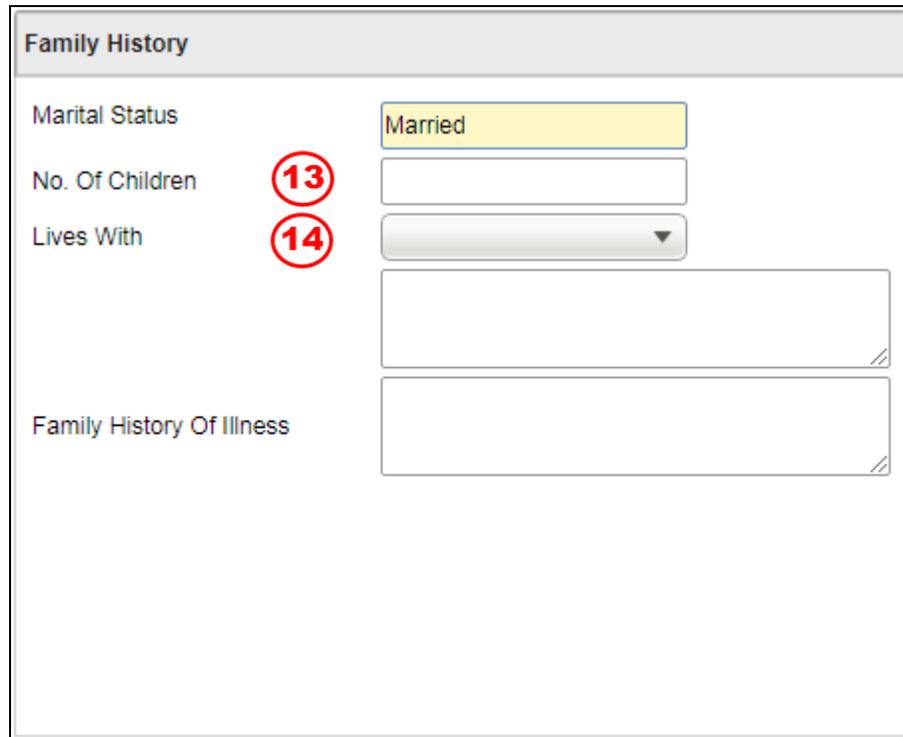
**STEP 12**

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



Family History

Marital Status

No. Of Children **13**

Lives With **14**

Family History Of Illness

Figure 3.2.1-7 MTAC Reporting – Assessment on Family History

### STEP 13

Enter **No. Of Children**

### STEP 14

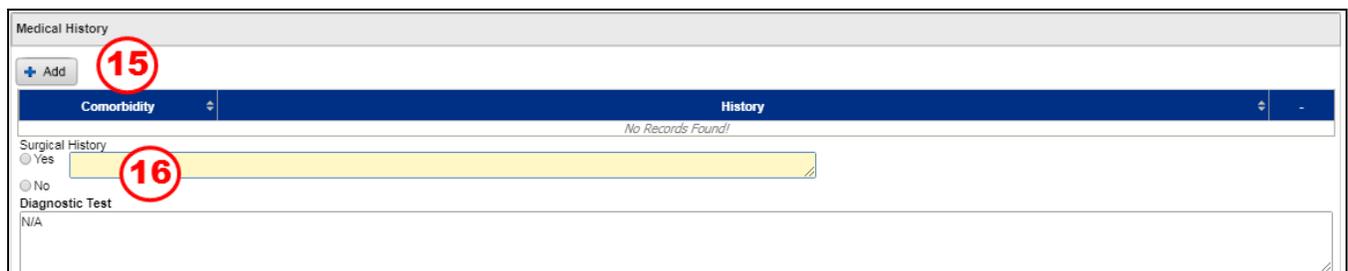
Select **Lives with** from the drop-down box

- Alone
- Family Members
- Nursing Home
- Others

### Note

- Blank fields will be enable for all types of **Lives with** selected
- Enter **Family History of Illness** if available

## Medical History



Medical History

**15**

Comorbidity	History
	No Records Found!

Surgical History

Yes **16**

No

Diagnostic Test

N/A

Figure 3.2.1-8 MTAC Reporting – Assessment on Medical History

#### STEP 15

Click  button and select any **Comorbidity** from drop-down menu and Fill up at **History** field.

#### Note

- User can enter multiple Comorbidity record by click  button.
- There are several type **Comorbidity**:
  - Hypertension
  - Diabetes Mellitus
  - Tuberculosis
  - AF
  - Asthma
  - Hepatitis B
  - Hepatitis C
  - Heart Failure
  - ESRD
  - COPD
  - RVD
  - Other
- **The History field can be free text 500 characters**

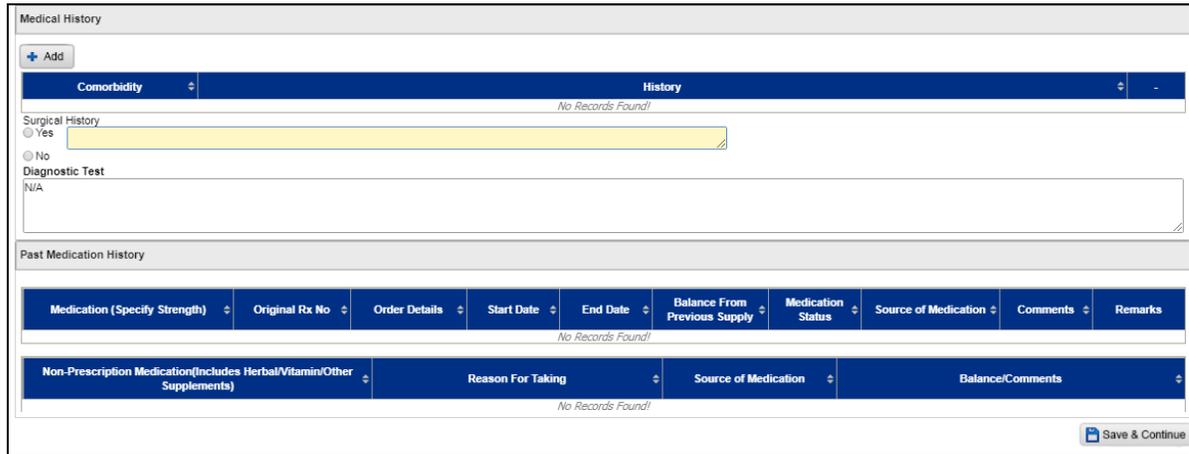
#### STEP 16

Select **Surgical History** radio button

- Yes
- No

#### Note

- If yes selected for Surgical History, user can enter remarks at free text column with maximum 500 characters
- User can enter Diagnosis Test that already change to 1 box only and can be fill up 2000 characters.



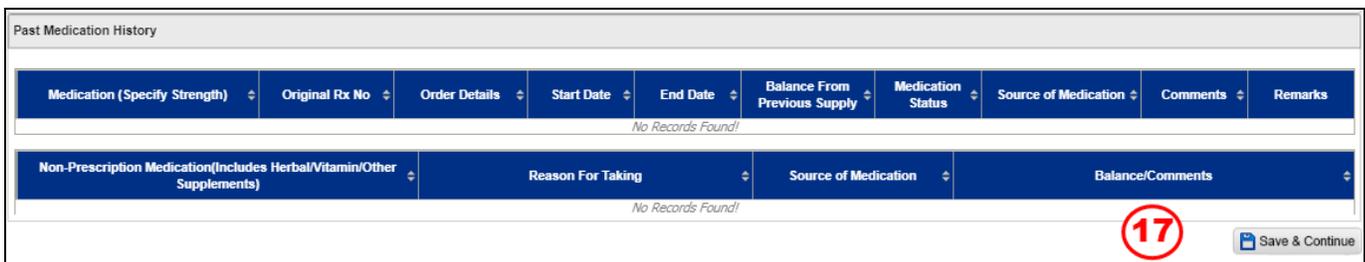
**Figure 3.2.1-9 MTAC Reporting – Assessment on Past Medication History**

**Note**

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

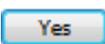
**STEP 17**

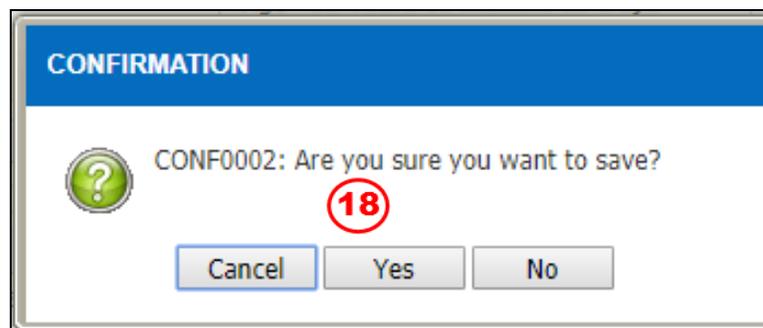
Click on the  button as shown in Figure 3.2.1-10 to save assessment and continue with reporting section



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

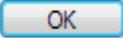
**STEP 18**

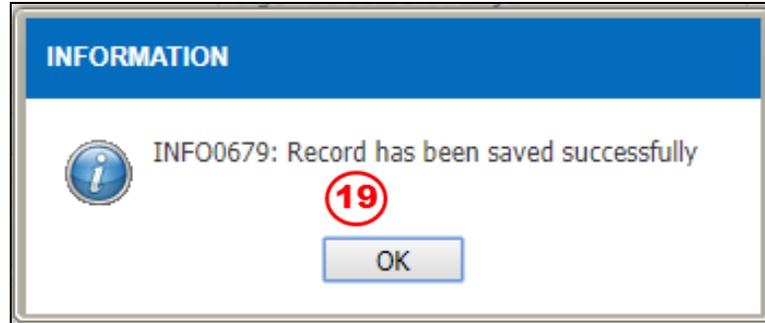
Click on the  button to confirm



**Figure 3.2.1-11 Confirmation Alert Message**

**STEP 19**

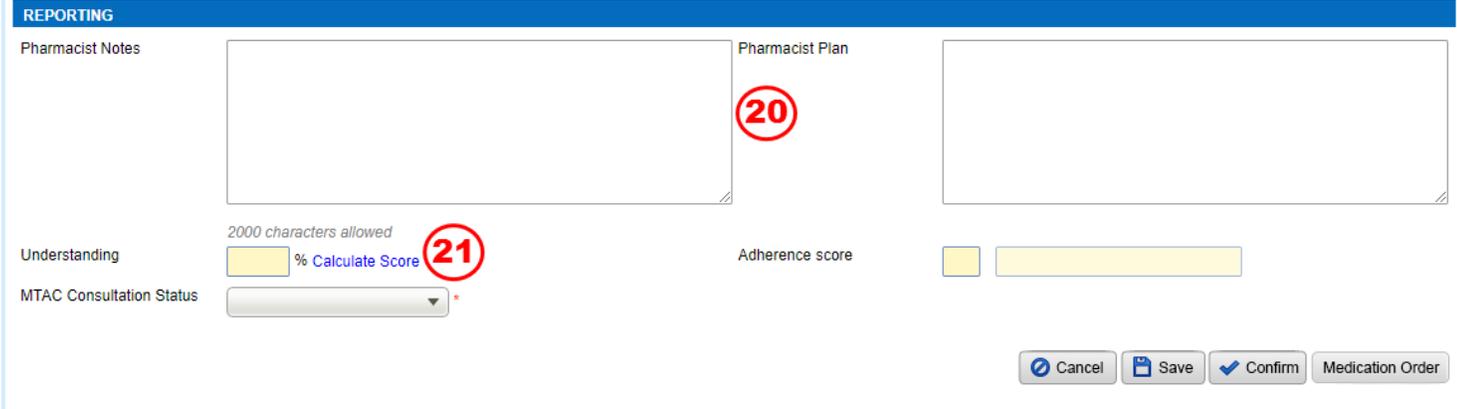
Click on the  button to confirm record



**Figure 3.2.1-12 Information Alert Message**

**Note**

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



The image shows the MTAC Reporting form. It has a blue header labeled "REPORTING". Below the header, there are two text input fields: "Pharmacist Notes" and "Pharmacist Plan". A red circle with the number "20" is placed over the "Pharmacist Plan" field. Below these fields, there are two progress bars: "Understanding" and "Adherence score". The "Understanding" field has a yellow progress bar and a "Calculate Score" hyperlink. A red circle with the number "21" is placed over the "Calculate Score" hyperlink. Below the "Understanding" field, there is a dropdown menu for "MTAC Consultation Status". At the bottom right of the form, there are four buttons: "Cancel", "Save", "Confirm", and "Medication Order".

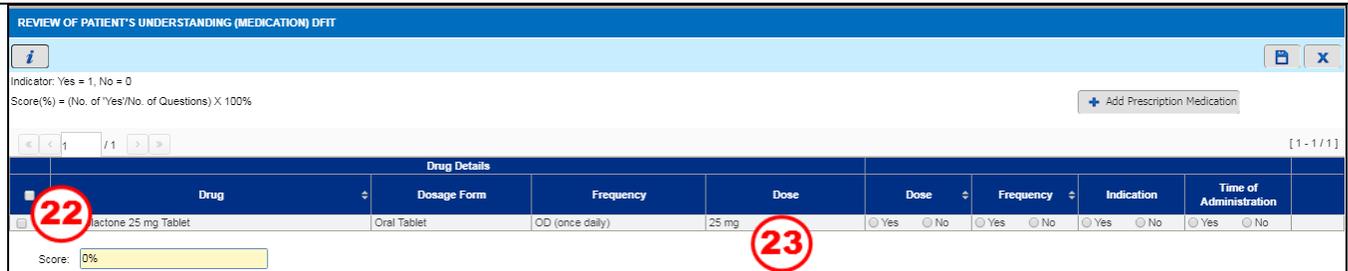
**Figure 3.2.1-13 MTAC Reporting**

**STEP 20**

Enter the **Pharmacist Notes** and **Pharmacist Plan**

**STEP 21**

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



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

Indicator: Yes = 1, No = 0  
Score(%) = (No. of 'Yes'/No. of Questions) X 100%

+ Add Prescription Medication

[ 1 - 1 / 1 ]

Drug Details										
Drug	Dosage Form	Frequency	Dose	Dose	Frequency	Indication	Time of Administration			
<input checked="" type="checkbox"/> Losartone 25 mg Tablet	Oral Tablet	OD (once daily)	25 mg	<input type="radio"/> Yes <input type="radio"/> No						

Score: 0%

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

**STEP 22**

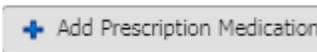
Click at the  checkbox to select drug

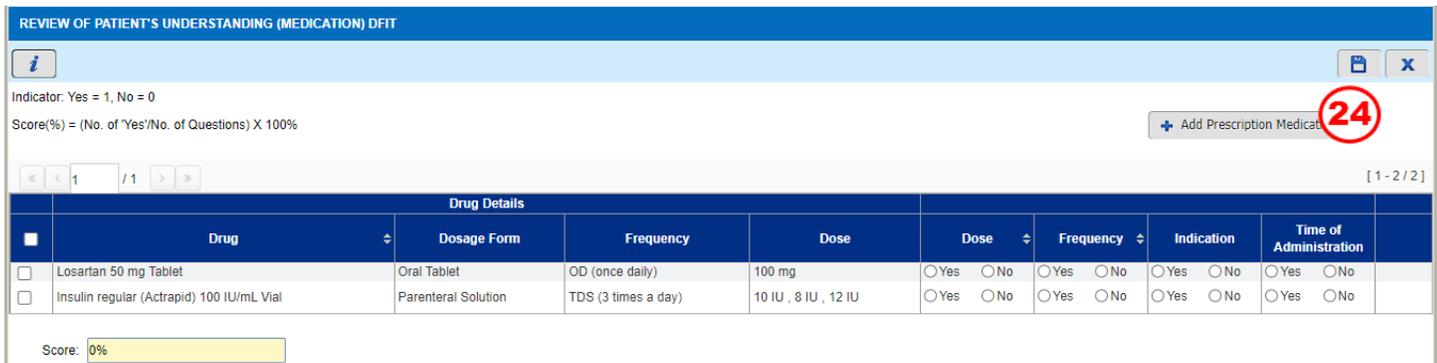
**STEP 23**

Select **Dose, Frequency, Indication and Time of Administration** from the radio button:

- Yes
- No

**Note**

- System will auto capture existing drugs ordered for patient in Drug details
- Score will be automatically calculated and displayed.
- User able to add additional drugs by clicking at  button to add new Prescription medication



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

Indicator: Yes = 1, No = 0  
Score(%) = (No. of 'Yes'/No. of Questions) X 100%

+ Add Prescription Medication

[ 1 - 2 / 2 ]

Drug Details										
Drug	Dosage Form	Frequency	Dose	Dose	Frequency	Indication	Time of Administration			
<input type="checkbox"/> Losartan 50 mg Tablet	Oral Tablet	OD (once daily)	100 mg	<input type="radio"/> Yes <input type="radio"/> No						
<input type="checkbox"/> Insulin regular (Actrapid) 100 IU/mL Vial	Parenteral Solution	TDS (3 times a day)	10 IU , 8 IU , 12 IU	<input type="radio"/> Yes <input type="radio"/> No						

Score: 0%

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

**STEP 24**

Click on the  button to save the Understanding calculator record

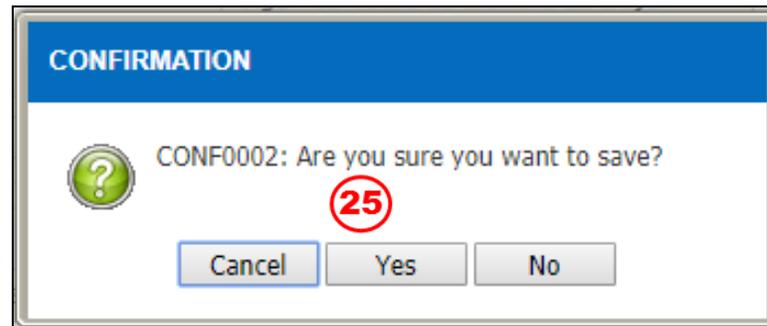


Figure 3.2.1-16 Confirmation alert message

**STEP 25**

Click on the  button to confirm save record

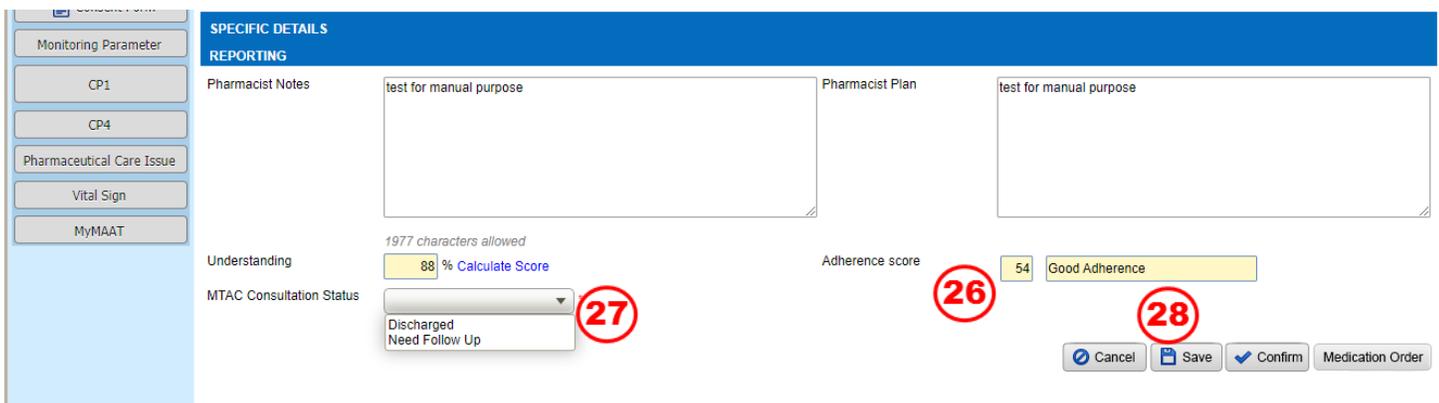


Figure 3.2.1-17 MTAC Reporting - Reporting

**STEP 26**

*Adherence Score is captured from MyMAAT assessment results*

**STEP 27**

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

- Discharged
- Need Follow Up

**Note**

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

**STEP 28**

Click on the  button as shown in Figure 3.2.1-17

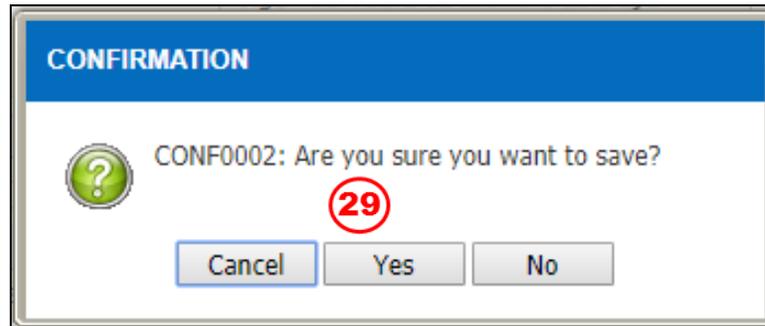


Figure 3.2.1-18 Confirmation Alert Message

**STEP 29**

Click on the  button to confirm save record

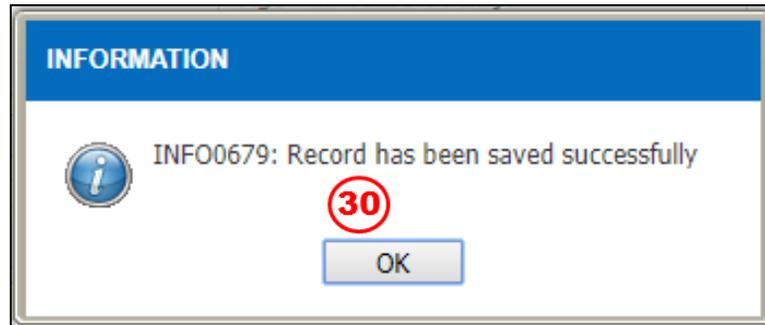


Figure 3.2.1-19 Information Alert Message

**STEP 30**

Click on the  button

**Note**

- User can cancel MTAC reporting by clicking at the  button as in Figure 3.2.1-17 and confirmation pop up will appear as shown in Figure 3.2.1-20

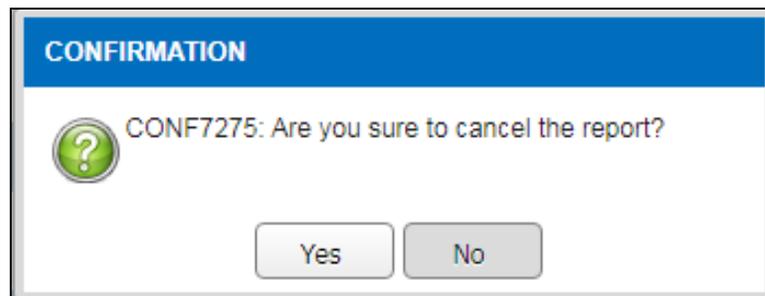
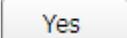


Figure 3.2.1-20 Confirmation Alert Message

- Click at  button to cancel MTAC Reporting

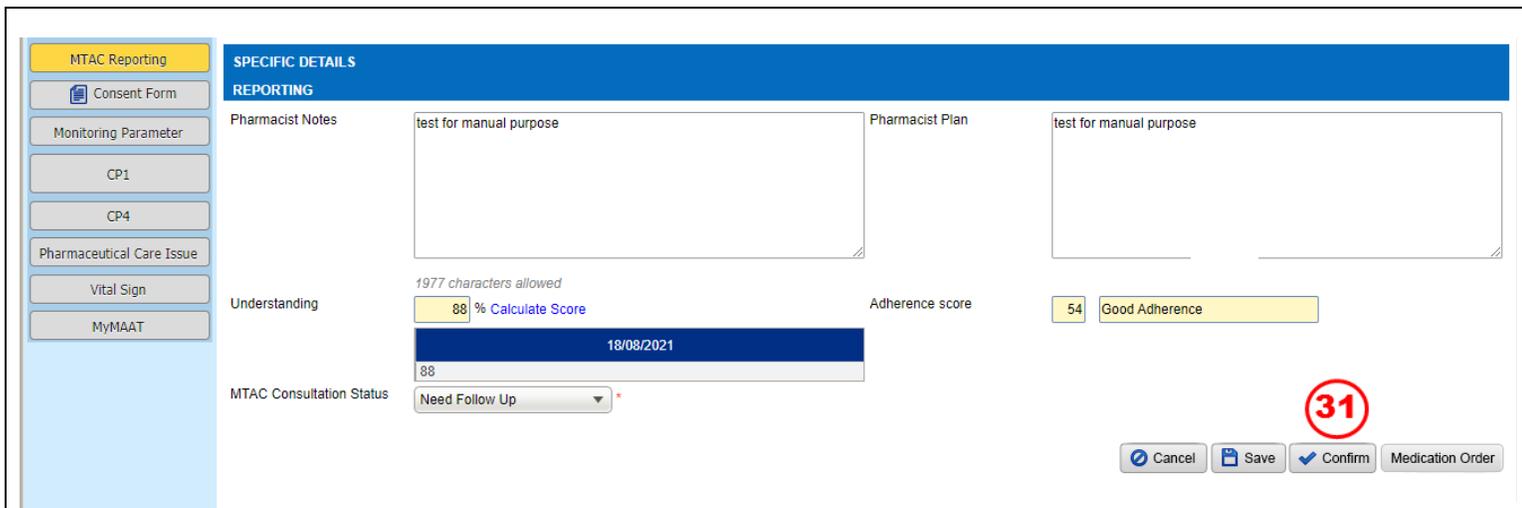


Figure 3.2.1-21 MTAC Reporting – Reporting

**STEP 31**

Click on the  button to confirm reporting

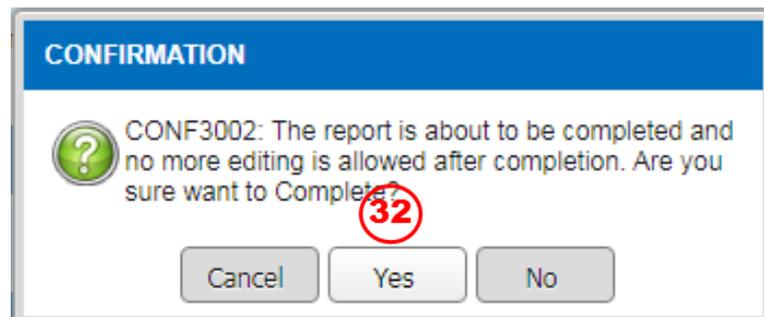


Figure 3.2.1-22 Confirmation Alert Message

**STEP 32**

Click on the  button to complete

**Note**

- After user has confirmed the record, no more editing is allowed, and the boxes change to yellow color.
- Previous Adherence Score record from previous visit is display (if any – max 5 newest record).

Encounter No: 0005 Actual Visit Date: 30/07/2021 Attending Practitioner: Visit Location: KLINIK PAKAR PEMBEDAHAN Prescriber Dept.:

Virtual Session: No

Type of MTAC: Diabetes Mellitus

Number of MTAC Visit: 1

MTAC No: MTA210004813

Understanding: 88% Calculate Score

Adherence score: 54 Good Adherence

MTAC Consultation Status: 18/08/2021

88

Need Follow Up \* MTAC Order **33**

Remarks

Save

Medication Order

Figure 3.2.1-23 MTAC Reporting Screen

**STEP 33**

Click on the **MTAC Order** button to schedule for next follow up appointment as per Figure 3.2.1-23 and MTAC order screen will display as per Figure 3.2.1-24

**MTAC ORDER**

Proceed To Reporting

Age 21 Years 05 Months 17 Days Gender Female MRN HPSF00305673

Address Phone And Email Diagnosis **Known Allergies** Vital Sign

Height 170 cm Weight 60 kg BMI/BSA 20.8 / 1.68 m<sup>2</sup> Update (Last Updated : 30/07/2021 ) Nationality : Warganegara

Type Of MTAC: Diabetes Mellitus Search History \*

Virtual Session:  Yes  No

Priority: Routine

To Be Counseled By

Appointment Date: 19/08/2021 Audit Trail

Appointment Type: Follow Up \* **34**

Remarks

**MTAC HISTORY**

MTAC No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
MTA210004813	Diabetes Mellitus	18/08/2021	New	Completed	

Figure 3.2.1-24 MTAC Order Screen

**STEP 34**

Schedule the follow up in the MTAC Order screen and the follow up date will appear in the reporting screen as shown in Figure 3.2.1-25

Encounter No: 0005 Actual Visit Date: 30/07/2021 Attending Practitioner: Visit Location: KLINIK PAKAR PEMBEDAHAN Prescriber Dept.:

Virtual Session: : No Type of MTAC: Diabetes Mellitus Number of MTAC Visit: : 1 MTAC No: MTA210004813

Understanding: 88 %  Adherence score: 54

Date: 18/08/2021  
 Score: 88

MTAC Consultation Status:  \*

Follow Up Date: 19/08/2021

Remarks:

Figure 3.2.1-25 MTAC Reporting Screen

**Note**

User able to enter remarks after confirm / cancel MTAC Report and the remarks will appear in MTAC report printing

Encounter No: 0005 Actual Visit Date: 30/07/2021 Attending Practitioner: Visit Location: KLINIK PAKAR PEMBEDAHAN Prescriber Dept.:

Virtual Session: : No Type of MTAC: Diabetes Mellitus Number of MTAC Visit: : 1 MTAC No: MTA210004813

**MTAC REPORTING**  
**ASSESSMENT**  
**SPECIFIC DETAILS**  
**REPORTING**

Pharmacist Notes:  Pharmacist Plan:

Understanding: 88 %  Adherence score: 54

Date: 18/08/2021  
 Score: 88

MTAC Consultation Status:  \*

Follow Up Date: 19/08/2021

Figure 3.2.1-26 MTAC Reporting – Print

**Note**

- Click on the  button to print the MTAC report as per Figure 3.2.1-26 and the system will show the report as per Figure 3.2.1-27
- Default to "No history of taking Non-Prescription Medication" if no data in table (in printed report).
- Add "Prescriber Review" Column
- If there is no data in both table, please display as below:
  - No Prescribed Medication Related Issue
  - No Other Issue
- Show "Current Medication" in the report printing
- Add Intervention Date in PCI reporting screen for prescribed Medication issue.



**MEDICATION THERAPY ADHERENCE REPORT**

**Hospital Pakar Sultanah Fatimah**

Patient Name : [REDACTED]	Diagnosis : tonsilactomy, fever
MRN : HPSF00305673	Allergy : Diclofenac, seafood
ID No : [REDACTED]	Number of MTAC Visit : 1
Type of MTAC : Diabetes Mellitus	MTAC Visit Date : 18/08/2021

**Assessment:**

<b>Social History</b>		<b>Family History</b>						
<b>Medical History</b>	<b>Comorbidity</b>							
	<b>Surgical History :- No</b>							
	<b>Diagnostic Test :- N/A</b>							
<b>Past Medication History</b>	<b>Medication (Specify Strength)</b>	<b>Order Detail</b>	<b>Start Date</b>	<b>End Date</b>	<b>Balance From</b>	<b>Medication Status</b>	<b>Comment</b>	<b>Remarks</b>
	No history of taking Prescription Medication							
	<b>Non-Prescription Medication ( Includes Herbal/Vitamin/Other Supplement )</b>				<b>Reason For Taking</b>	<b>Balance/Comments</b>		
	No history of taking Non-Prescription Medication							
<b>Current Medication List</b>	<b>Drug</b>	<b>Drug Detail</b>	<b>Date Start</b>	<b>Date Stop</b>	<b>Order Location</b>			
	Insulin regular (Actrapid) 100 IU/mL Vial	10 IU (08:00 AM), 8 IU (12:00 PM), 12 IU (08:00 PM), TDS (3 times a day)	29/07/2021 02:43:20 PM	27/09/2021 02:43:20 PM	KLINIK PAKAR PERUBATAN - MOPC			
	Losartan 50 mg Tablet	100 mg ,OD (once daily)	29/07/2021 02:55:23 PM	26/12/2021 02:55:23 PM	KLINIK PAKAR PERUBATAN - MOPC			

**Report:**

MTAC Consultation Status: Need Follow Up

**Pharmaceutical Care Issues:**

Prescribed Medication Related Issues:

No.	Intervention Date	Prescription Start Date	Original Rx No.	Drug Name	Order Details	Modified Order Details	Intervention Remarks	Intervention Details		Prescriber Review
								Types	Description	
No Prescribed Medication Related Issues										

Other Issue:

No.	Intervention Date	Intervention Details		Pharmaceutical Care Issues	Pharmacist Recommendation	Outcome	Follow-up	Prescriber Review
		Types	Description					
No Other Issue								

Patient Understanding (medication) DFIT : 88%

Patient Adherence Score : 54 - Good Adherence

Pharmacist Notes : test for manual purpose

Pharmacist Plan : test for manual purpose

Follow up Date : 19/08/2021

Remarks :

Pharmacist Name: [REDACTED]

Date: 18/08/2021

**Figure 3.2.1-27 MTAC Printed Report**

### 3.2.2 Other Tabs

#### 3.2.2-1 Monitoring Parameter

This function allows user to record lab results for MTAC patients.

Encounter No: 0005 Actual Visit Date: 30/07/2021 Attending Practitioner: Visit Location: KLINIK PAKAR PEMBEDAHAN Prescriber Dept:

Virtual Session: No Type of MTAC: Diabetes Mellitus Number of MTAC Visit: 1 MTAC No: MTA210004813

**MONITORING PARAMETER**

FBC BUSE/RP LFT Coag CE Urine FEME LP Blood Sugar ABG Thyroid RVD Hepatitis Drug Urine Test Others

Full Blood Count

Date/Time:

Result	Normal Range				
Sample	Result	Adult	Children	Neonates	Infant
TWBC	<input type="text"/> x10/L	4 - 11 x 10 <sup>9</sup>	4.5-13.5	5-21	6-18
Neutrophils	<input type="text"/>	0.4-0.7	55	40	30
Lymphocytes	<input type="text"/>	0.22-0.44	38	63	48
Eosinophils	<input type="text"/>	0-0.08			
Basophils	<input type="text"/>	0-0.03			
RBC (/L)	<input type="text"/> x10 <sup>6</sup>	4.5- 6.3 x 10 <sup>12</sup>	3.7 - 6.5 x 10 <sup>12</sup>	3.7 - 6.5 x 10 <sup>12</sup>	
Monocytes	<input type="text"/>				
Hb (g/dL)	<input type="text"/> g/100ml	Male 13.5 - 17.5 Female 12 - 16			
HCT	<input type="text"/>	Male 0.41 - 0.53 Female 0.36 - 0.46	0.31 - 0.37	0.28 - 0.55	0.33 - 0.39

Remarks:

Figure 3.2.2-1 MTAC Reporting Screen

**STEP 1**

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

**MONITORING PARAMETER**

FBC BUSE/RP LFT **Coag** CE Urine FEME LP Blood Sugar ABG Thyroid RVD Hepatitis Drug Urine Test Others

Coagulation Profile

Date/Time:

Result	Normal Range			
Sample	Result	Adult	Children	Neonates & Infant
PT (sec)	<input type="text"/>	10 - 13.5	11 - 15	10 - 13.5
APTT (sec)	<input type="text"/>	26 - 42	26 - 42	26 - 42
INR	<input type="text"/>	<1.5	<1.5	<1.5

Remarks:

**Result List**

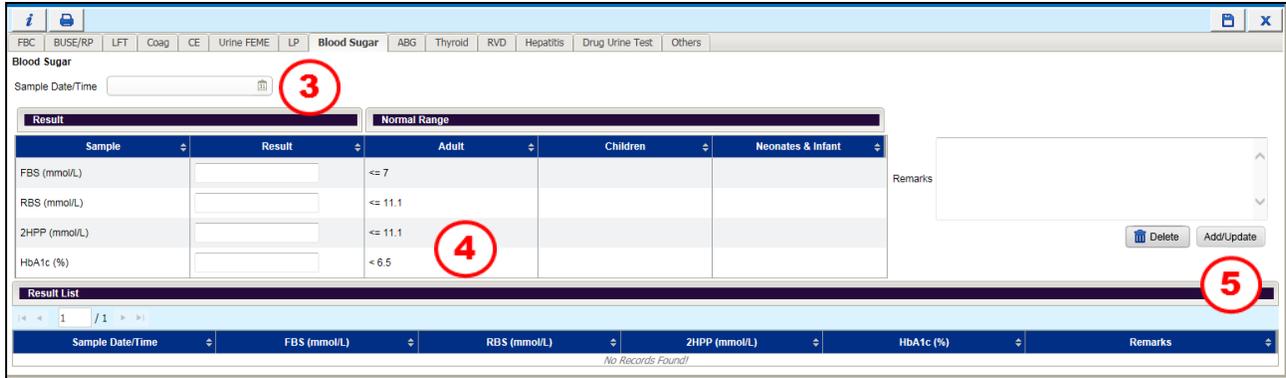
< 1 / 1 >

Date/Time	PT (sec)	APTT (sec)	INR	Remarks
No Records Found!				

Figure 3.2.2-2 Monitoring Parameter Screen

**STEP 2**

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



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

Sample Date/Time	FBS (mmol/L)	RBS (mmol/L)	2HPP (mmol/L)	HbA1c (%)	Remarks
No Records Found!					

Figure 3.2.2-3 Monitoring Parameter Screen

**STEP 3**

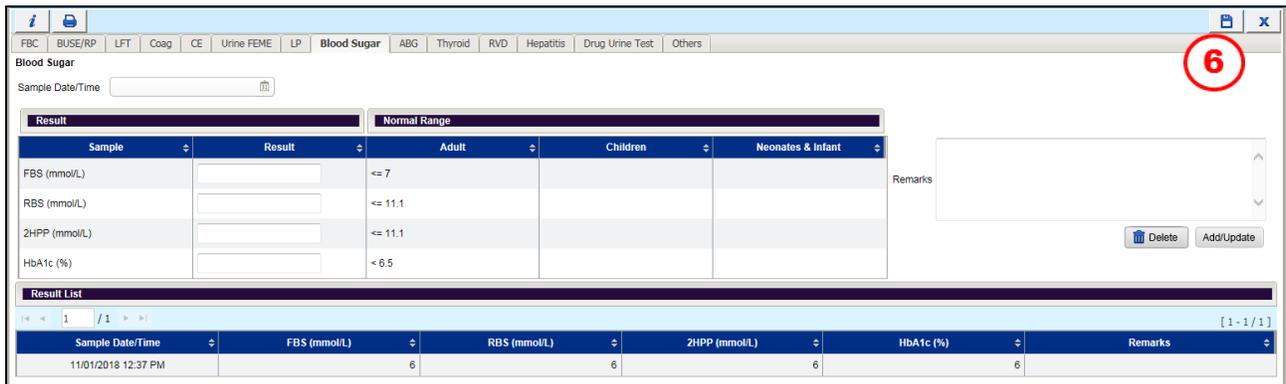
Click on the  calendar button to select the **Sample Date/Time**

**STEP 4**

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

**STEP 5**

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



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

Sample Date/Time	FBS (mmol/L)	RBS (mmol/L)	2HPP (mmol/L)	HbA1c (%)	Remarks
11/01/2018 12:37 PM	6	6	6	6	

Figure 3.2.2-4 Monitoring Parameter Screen

**STEP 6**

Click on the  button to save the record

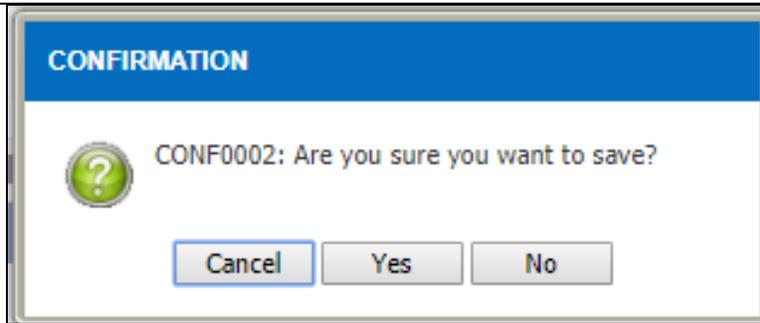


Figure 3.2.2-5 Confirmation Alert Message

**STEP 7**

Click on the  button to confirm

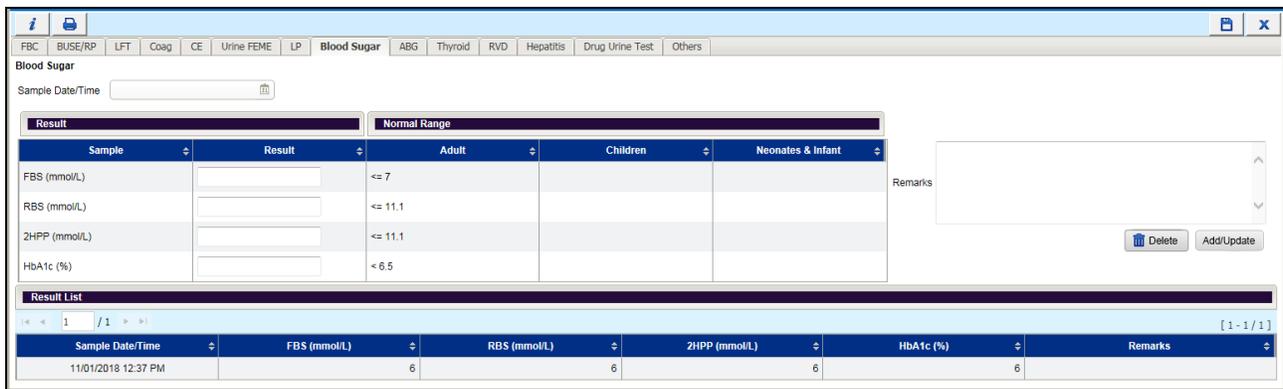


Figure 3.2.2-6 Monitoring Parameter Screen

**Note**

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

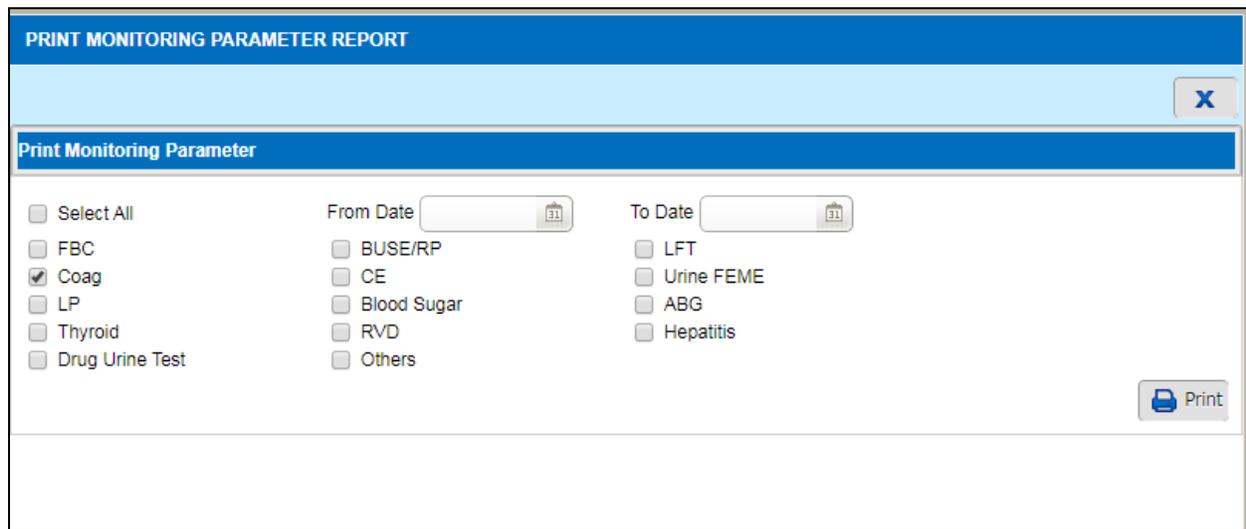
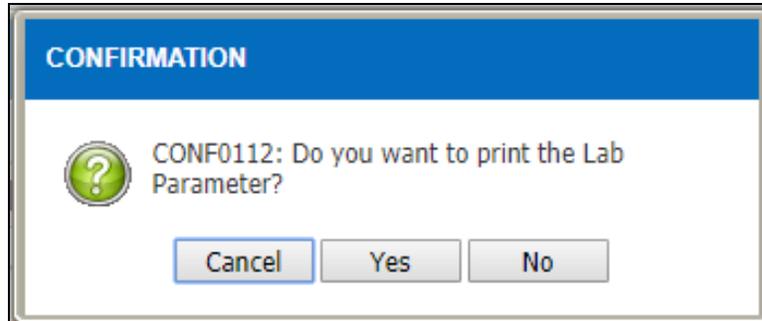
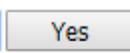


Figure 3.2.2-7 Print Monitoring Parameter Report

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



**Figure 3.2.2-8 Confirmation Alert Message**

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

KEMENTERIAN KESIHATAN MALAYSIA		Lab Parameter	
LAB PARAMETER REPORT			
Hospital Pakar Sultanah Fatimah, Muar			
PATIENT NAME : <input type="text"/>	IC NO : <input type="text"/>	AGE : 32 Years 01 Months 17 Days	
MRN NO : HPSF00268221	WEIGHT/HEIGHT : 80.00Kg /160.00 Cm	GENDER : Female	
WARD/BED : KLINIK PAKAR PERUBATAN /	ADMISSION DATE : 07/10/2019	REASON FOR ADMISSION :	

Coag				
Date\Time	PT	APTT	INR	Remarks
07/10/2019 6:15 PM	11	27	0.8	test for user manual

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

### 3.2.2.2 CP1

This function allows user to record past medication history under CP1 for MTAC patients

The screenshot shows the CP1 form interface. On the left sidebar, the 'CP1' button is highlighted with a red circle and the number '1'. The main form area includes sections for Patient Biodata (Admission Date/Time: 30/07/2021 9:49 AM, Ward/Bed: KLINIK PAKAR PEMBEDAHAN), Reason For Admission, Allergy & Adverse Drug Reaction (1. Allergy, 2. ADR), Drug History, and Prescription Medication. Below these sections is a table of active medication with the following data:

Drug Name	Original Rx No	Order Details	Start Date	End Date	Balance From Previous Supply	Medication Status	Source of Medication	Comments	Remarks
Insulin regular (Actrapid) 100 IU/mL Vial	MOPC0002340609	10 IU, 8 IU, 12 IU, TDS (3 times a day), 60 Days	29/07/2021 02:43:20 PM	27/09/2021 02:43:20 PM	1 vial	PARTIALLY DISPENSED	Hospital Pakar Sultanah Fatimah	Outpatient / 29-07-2021 / EncounterNo:0001	

Figure 3.2.2.2-1 MTAC Reporting – Assessment on Past Medication History

#### STEP 1

Click on the  button to add 'Past Medication History' as shown in Figure 3.2.2.2-1

The screenshot shows the CP1 form with patient details filled in. A red circle with the number '2' highlights the 'Reason For Admission' text area. The patient details are: Admission Date/Time: 09/05/2017 9:02:26 AM, Ward/Bed: KLINIK PAKAR PEMBEDAHAN, and Reason For Admission: (empty text area). The table below shows 'No Records Found!'.

Drug Name	Original Rx No	Order Details	Start Date	End Date	Balance From Previous Supply	Medication Status	Source of Medication	Comments	Remarks
No Records Found!									

Figure 3.2.2.2-2 CP1

#### STEP 2

Fill in the patients details as below:

-A: Patient Biodata

- Admission date
- Ward/Bed
- PMHX
- Last Discharge/review Date

-B: Reason For Admission

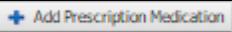
-C: Allergy & Adverse Drug Reaction

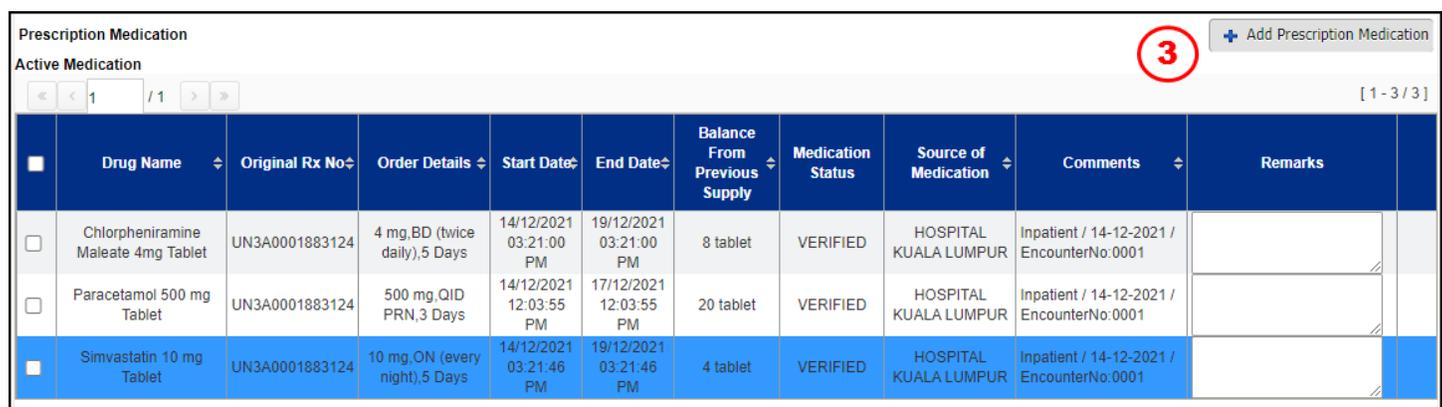
- Allergy
- ADR

-D: Drug History

- Patients own drug checked?

### STEP 3

Click on the  button and the 'Prescription Medication' window will be displayed as shown in Figure 3.2.2.2-3. Enter the necessary information and save



<input type="checkbox"/>	Drug Name	Original Rx No	Order Details	Start Date	End Date	Balance From Previous Supply	Medication Status	Source of Medication	Comments	Remarks
<input type="checkbox"/>	Chlorpheniramine Maleate 4mg Tablet	UN3A0001883124	4 mg, BD (twice daily), 5 Days	14/12/2021 03:21:00 PM	19/12/2021 03:21:00 PM	8 tablet	VERIFIED	HOSPITAL KUALA LUMPUR	Inpatient / 14-12-2021 / EncounterNo:0001	
<input type="checkbox"/>	Paracetamol 500 mg Tablet	UN3A0001883124	500 mg, QID PRN, 3 Days	14/12/2021 12:03:55 PM	17/12/2021 12:03:55 PM	20 tablet	VERIFIED	HOSPITAL KUALA LUMPUR	Inpatient / 14-12-2021 / EncounterNo:0001	
<input checked="" type="checkbox"/>	Simvastatin 10 mg Tablet	UN3A0001883124	10 mg, ON (every night), 5 Days	14/12/2021 03:21:46 PM	19/12/2021 03:21:46 PM	4 tablet	VERIFIED	HOSPITAL KUALA LUMPUR	Inpatient / 14-12-2021 / EncounterNo:0001	

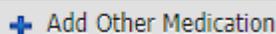
Figure 3.2.2.2-3 Add Prescription Medication

### Note

Past Medication History:

- Prescription Medication.
  - It has certain condition whereby the drug display at prescription medication come from the latest visit patient at that facility
  - User can add prescriptions medication from other facility too
  - User can fill up **Original Rx No, Order Details, Start Date, End date, Balance from Previous Supply, Medication Status, Source of Medication, Comments and Remarks** at prescription medication

### STEP 4

Click on the  button and the 'Other Medication' window will be displayed as shown in Figure 3.2.2.2-4. Enter the necessary information and save

### Note

Past Medication History:

- Other Medication.
  - User can add any other medication that has been taken by patient in system
  - User can fill up **Other Medication(Includes Herbal/Vitamin/Other Supplement), Reason For Taking, Source of Medication, Balance/Comments and Pharmacist Notes** at the Other Medication field.

Other Medication 4 + Add Other Medication

[ 1 - 2 / 2 ]

<input type="checkbox"/>	Other Medication (Includes Herbal/Vitamin/Other Supplements)	Reason For Taking	Source of Medication	Balance/Comments	
<input checked="" type="checkbox"/>	revicon forte	supplement	retail	100 tablets	
<input checked="" type="checkbox"/>					

Pharmacist Notes

Figure 3.2.2.2-4 Non-Prescription Medication

CP1 5

A: Patient Biodata  
 Admission Date/Time: 08/12/2021 3:29 PM  
 Ward/Bed: Farmasi Klinik Pakar/  
 PMHx:  
 Last Discharge/Review date:

B: Reason For Admission

C: Allergy & Adverse Drug Reaction  
 1. Allergy 2. ADR

D: Drug History  
 Patient's own drugs checked?

Prescription Medication + Add Prescription Medication

Active Medication [ 1 - 3 / 3 ]

<input type="checkbox"/>	Drug Name	Original Rx No	Order Details	Start Date	End Date	Balance From Previous Supply	Medication Status	Source of Medication	Comments	Remarks
<input type="checkbox"/>	Chlorpheniramine Maleate 4mg Tablet	UN3A0001883124	4 mg, BD (twice daily), 5 Days	14/12/2021 03:21:00	19/12/2021 03:21:00	8 tablet	VERIFIED	HOSPITAL KUALA LUMPUR	Inpatient / 14-12-2021 / EncounterNo:0001	

Figure 3.2.2.2-5 CP1 Screen

STEP 5

Click at the  button to save the CP1 record

### 3.2.2.3 CP4

This function allows user to record Intervention and other issues related to CP4 for MTAC patients

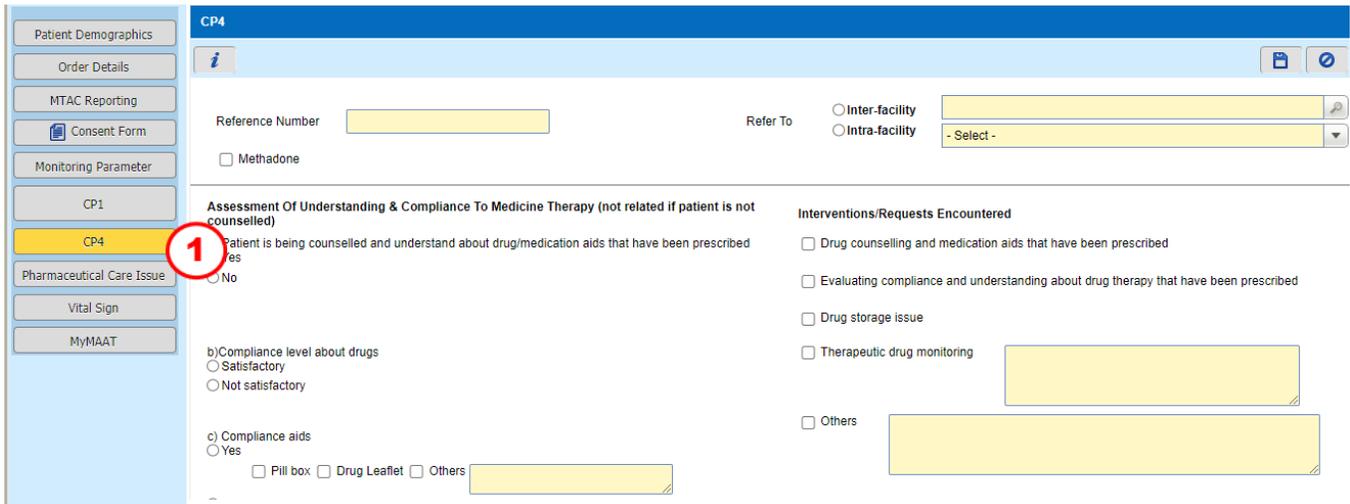


Figure 3.2.2.3-1 CP4 Screen

#### STEP 1

Click on the  button to enter the details

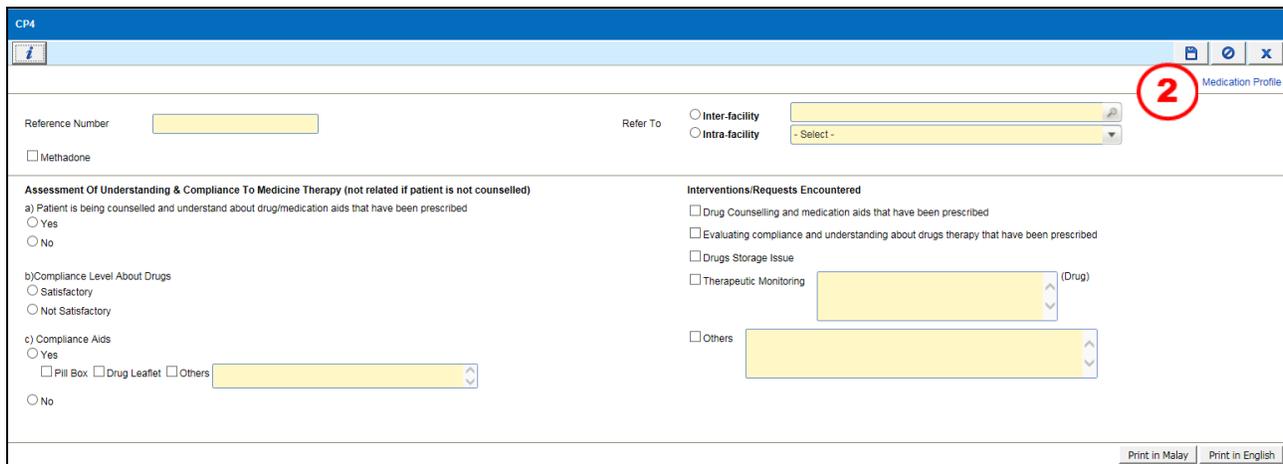


Figure 3.2.2.3-2 CP4 Assessment Of Understanding & Compliance Screen

#### Note

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

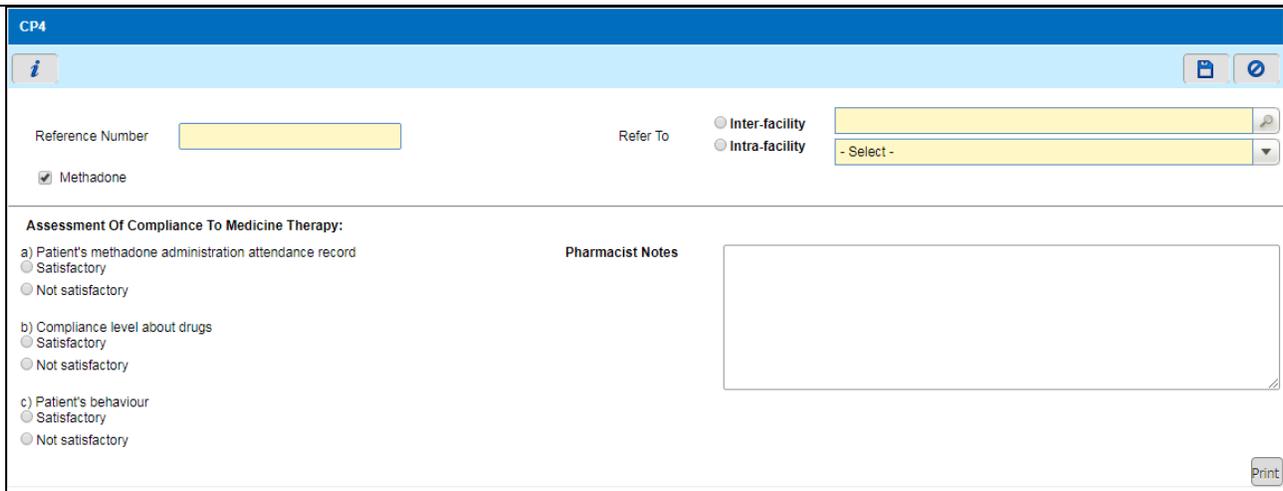


Figure 3.2.2.3-3 CP4 – Methadone Screen

**STEP 2**

Click on the  button to save the record

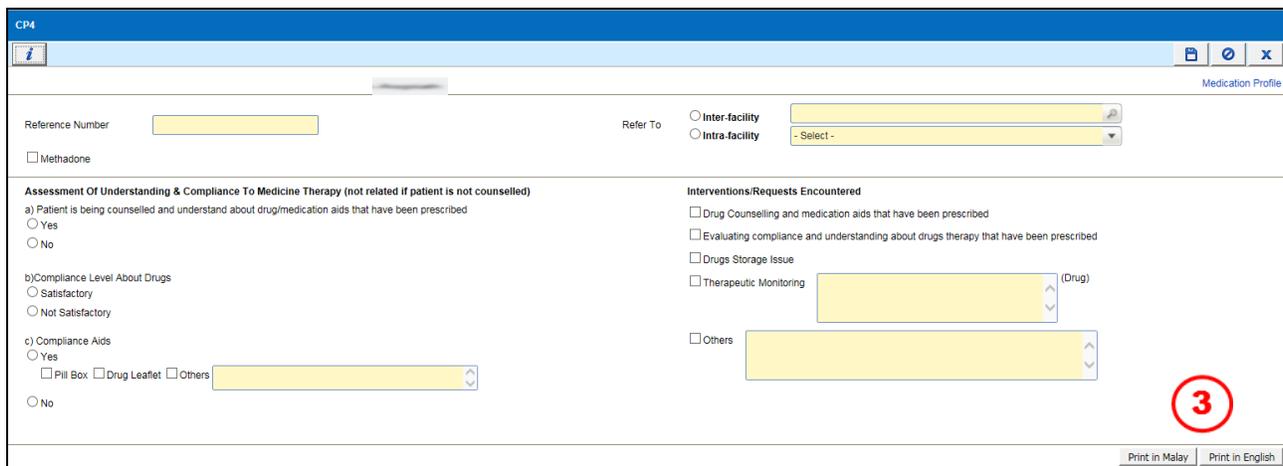


Figure 3.2.2.3-4 CP4 Print Report

**STEP 3**

Click on the  or  to print the CP4 as per Figure 3.2.2.3-4

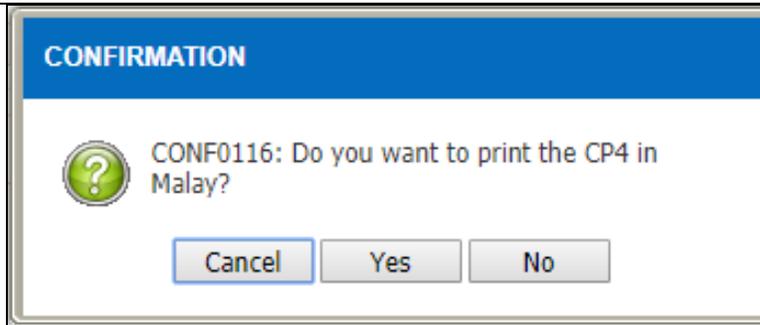


Figure 3.2.2.3-5 Confirmation Alert Message

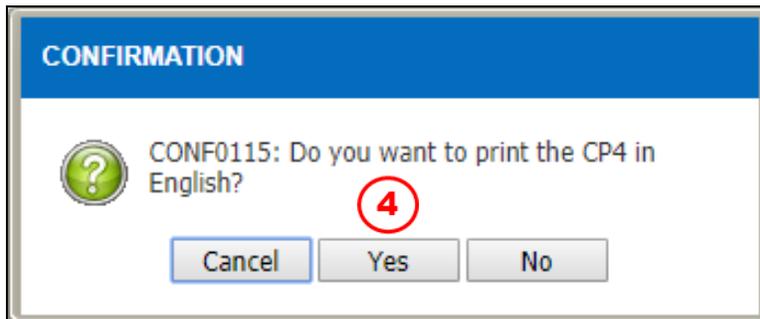
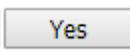


Figure 3.2.2.3-6 Confirmation Alert Message

**STEP 4**

Click on the  button to confirm and the Referral Note will be display as per Figure 3.2.2.3-7

**KEMENTERIAN KESIHATAN MALAYSIA**

Hospital Pakar Sultanah Fatimah

**Pharmacy Department**

**REFERRAL NOTE**

**CP4/1601**

TO:

Medical Officer / Pharmacist : Hospital Sultanah Nora Ismail

RE: PATIENT REFERRAL

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ / **HPSF00305673** / \_\_\_\_\_  
Name MRN IC No

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

**2. DIAGNOSIS :**

Date	Diagnosis Description
30/07/2021	tonsilactomy

**3. LIST OF CURRENT DRUG :**

Drug Name	Dose	Frequency	Start Date	End Date	Supply Period
Losartan 50 mg Tablet	100 mg	OD (once daily)	29/07/2021	26/12/2021	5 Months
Insulin regular (Actrapid) 100 IU/mL Vial	10 IU , 8 IU , 12 IU	TDS (3 times a day)	29/07/2021	27/09/2021	60 Days

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

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

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

**5. INFORMATION / REQUESTS ENCOUNTERED :**

[Please tick (  ) In the box provided]

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

Thank You,

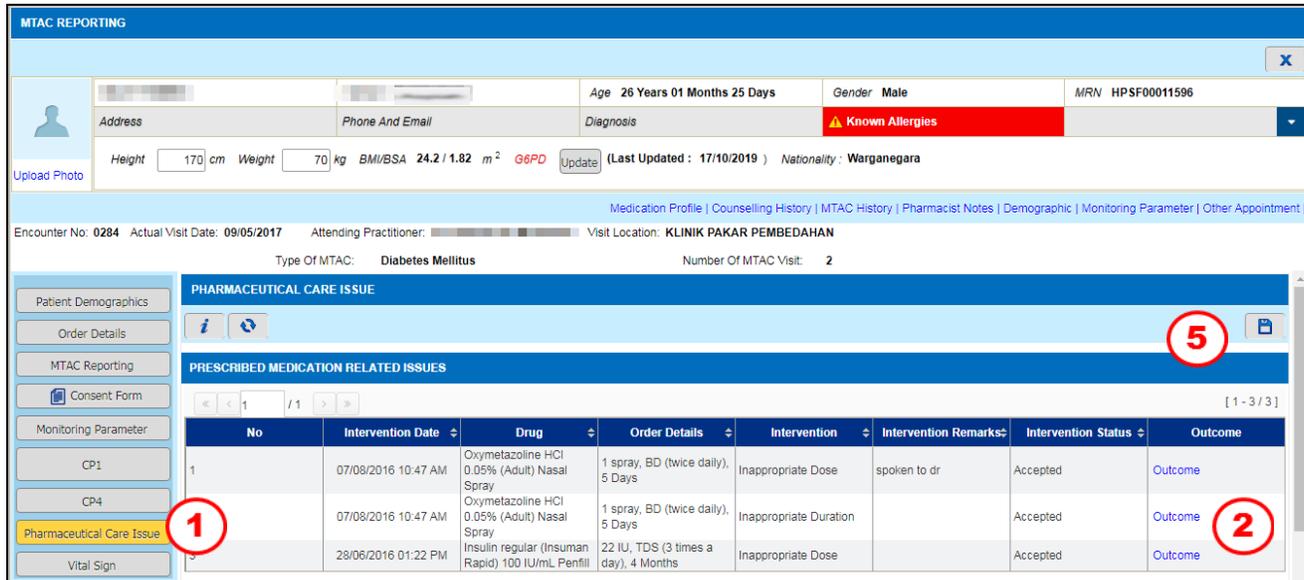
PFK

069521901

**Figure 3.2.2.3-7 CP4 / Referral Note Printed Report**

### 3.2.2.4 Pharmaceutical Care Issue

This function allows user to record pharmaceutical care issues for MTAC patients



**MTAC REPORTING**

Age 26 Years 01 Months 25 Days | Gender Male | MRN HPSF00011596

Diagnosis: **Known Allergies**

Height 170 cm | Weight 70 kg | BMI/BSA 24.2 / 1.82 m<sup>2</sup> | O6PD | (Last Updated: 17/10/2019) | Nationality: Warganegara

Encounter No: 0284 | Actual Visit Date: 09/05/2017 | Attending Practitioner: | Visit Location: KLINIK PAKAR PEMBEDAHAN

Type Of MTAC: Diabetes Mellitus | Number Of MTAC Visit: 2

**PHARMACEUTICAL CARE ISSUE**

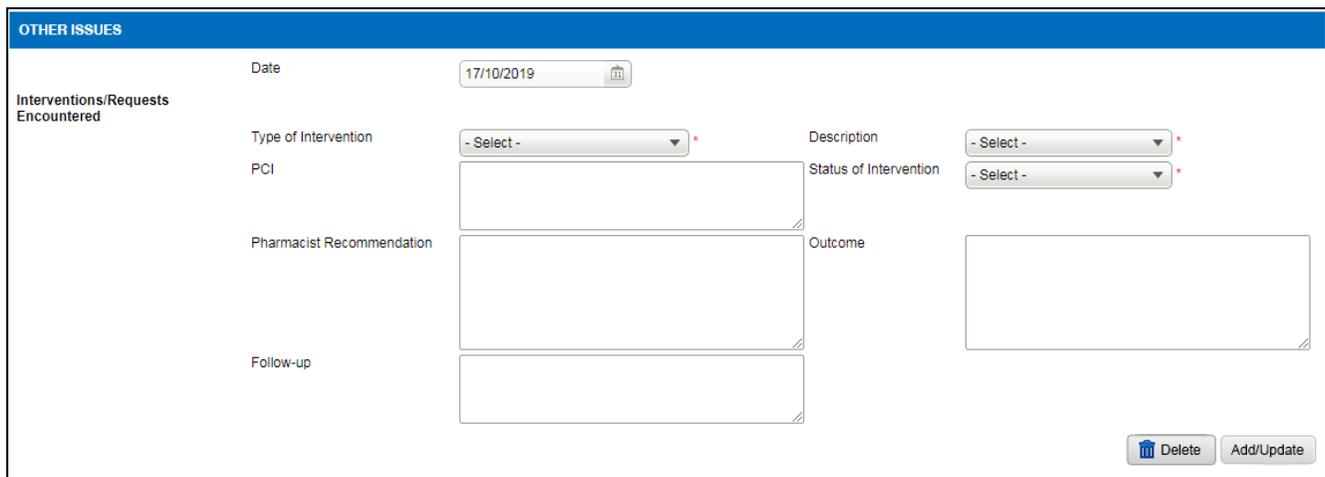
**PRESCRIBED MEDICATION RELATED ISSUES**

No	Intervention Date	Drug	Order Details	Intervention	Intervention Remarks	Intervention Status	Outcome
1	07/08/2016 10:47 AM	Oxymetazoline HCl 0.05% (Adult) Nasal Spray	1 spray, BD (twice daily), 5 Days	Inappropriate Dose	spoken to dr	Accepted	Outcome
	07/08/2016 10:47 AM	Oxymetazoline HCl 0.05% (Adult) Nasal Spray	1 spray, BD (twice daily), 5 Days	Inappropriate Duration		Accepted	Outcome
	28/06/2016 01:22 PM	Insulin regular (Insuman Rapid) 100 IU/mL Penfill	22 IU, TDS (3 times a day), 4 Months	Inappropriate Dose		Accepted	Outcome

Figure 3.2.2.4-1 MTAC Reporting Screen

**STEP 1**

Click on the **Pharmaceutical Care Issue** button and the system will display Prescribed Medication related Issues as in Figure 3.2.2.4-1 and Other issues as per Figure 3.2.2.4-2



**OTHER ISSUES**

Date: 17/10/2019

Interventions/Requests Encountered

Type of Intervention: - Select -

Description: - Select -

PCI: [Text Area]

Status of Intervention: - Select -

Pharmacist Recommendation: [Text Area]

Outcome: [Text Area]

Follow-up: [Text Area]

Buttons: Delete, Add/Update

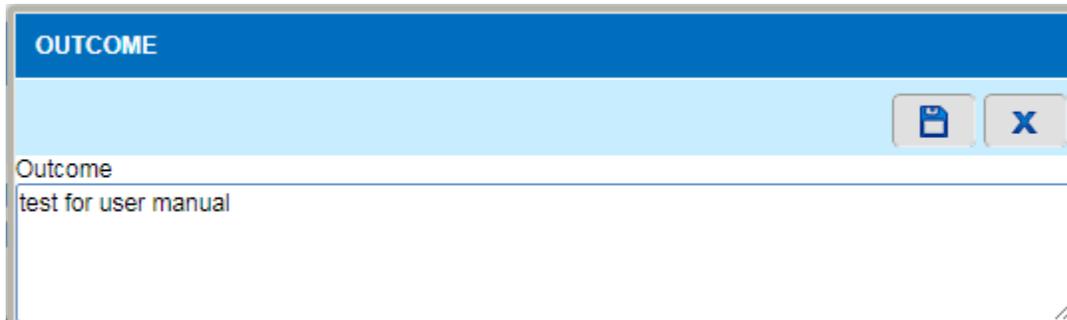
Figure 3.2.2.4-2 Other Issues

**Note**

- The column for **Intervention Remarks** in PCI screen has been added.
- **Other Details** was renamed to **Order Details** as per Figure 3.2.2.4-1

**STEP 2**

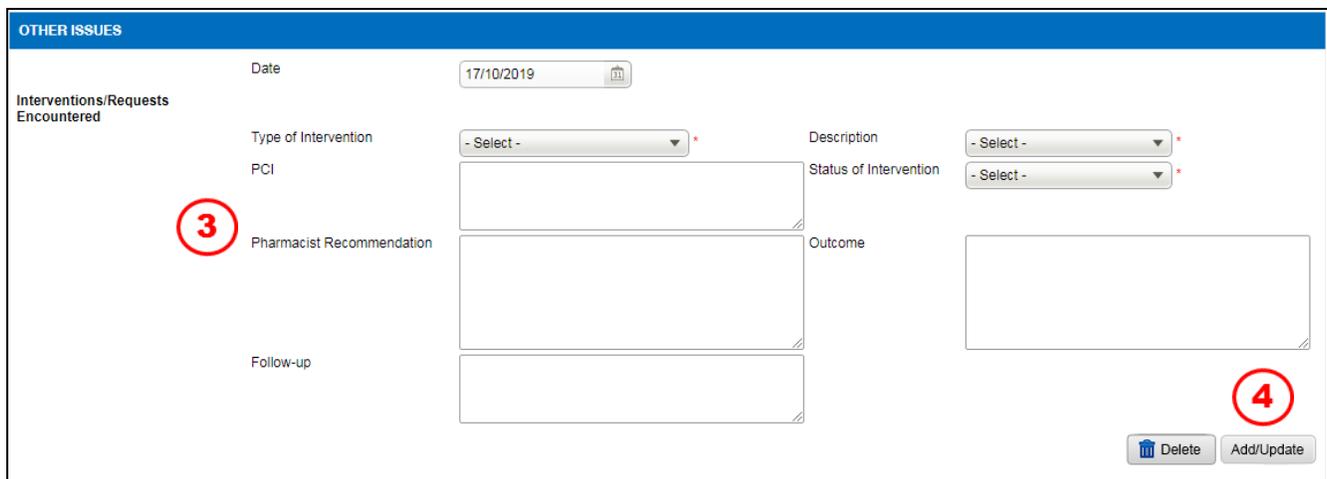
Click on the [Outcome](#) hyperlink to enter the details. The system will display as per Figure 3.2.2.4-3. Save when done.



**Figure 3.2.2.4-3 Outcome Screen**

**STEP 3**

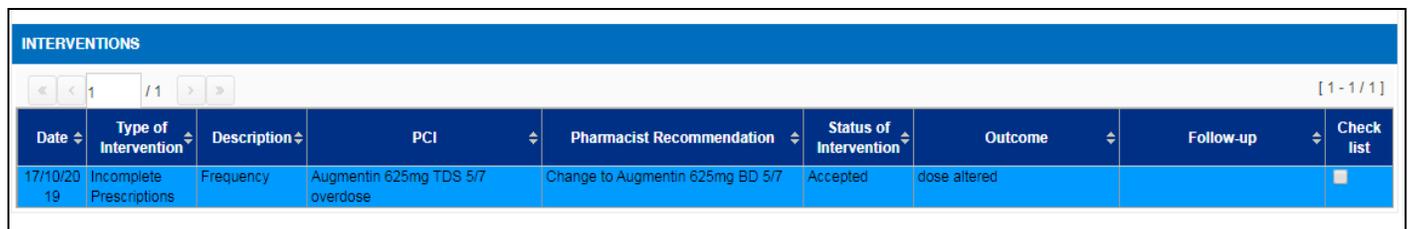
Fill up the **Interventions/Requests Encountered** under **Other Issues** section as per Figure 3.2.2.4-4



**Figure 3.2.2.4-4 Other Issues Screen**

**STEP 4**

Click on the [Add/Update](#) button to update and it will appear below under **Interventions** section as per Figure 3.2.2.4-5



Date	Type of Intervention	Description	PCI	Pharmacist Recommendation	Status of Intervention	Outcome	Follow-up	Checklist
17/10/2019	Incomplete Prescriptions	Frequency	Augmentin 625mg TDS 5/7 overdose	Change to Augmentin 625mg BD 5/7	Accepted	dose altered		<input type="checkbox"/>

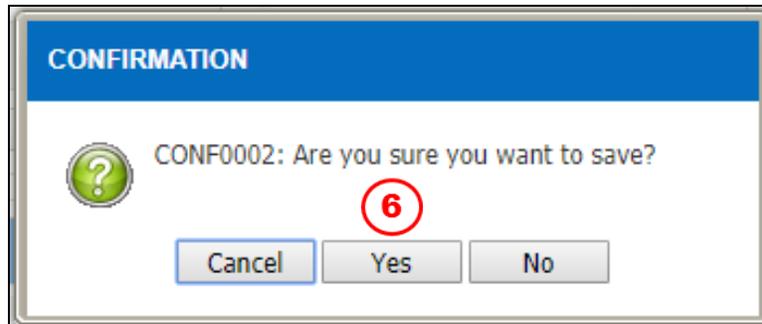
**Figure 3.2.2.4-5 Interventions Section**

**Note**

Tick on the  checkbox and click the  button to delete the intervention record as per Figure 3.2.2.4-5

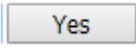
**STEP 5**

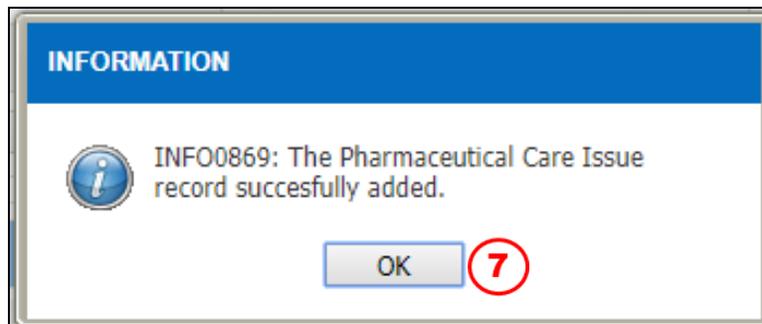
Click on the  button to save the record as per Figure 3.2.2.4-1



**Figure 3.2.2.4-6 Confirmation Alert Message**

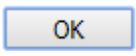
**STEP 6**

Click on the  button to confirm



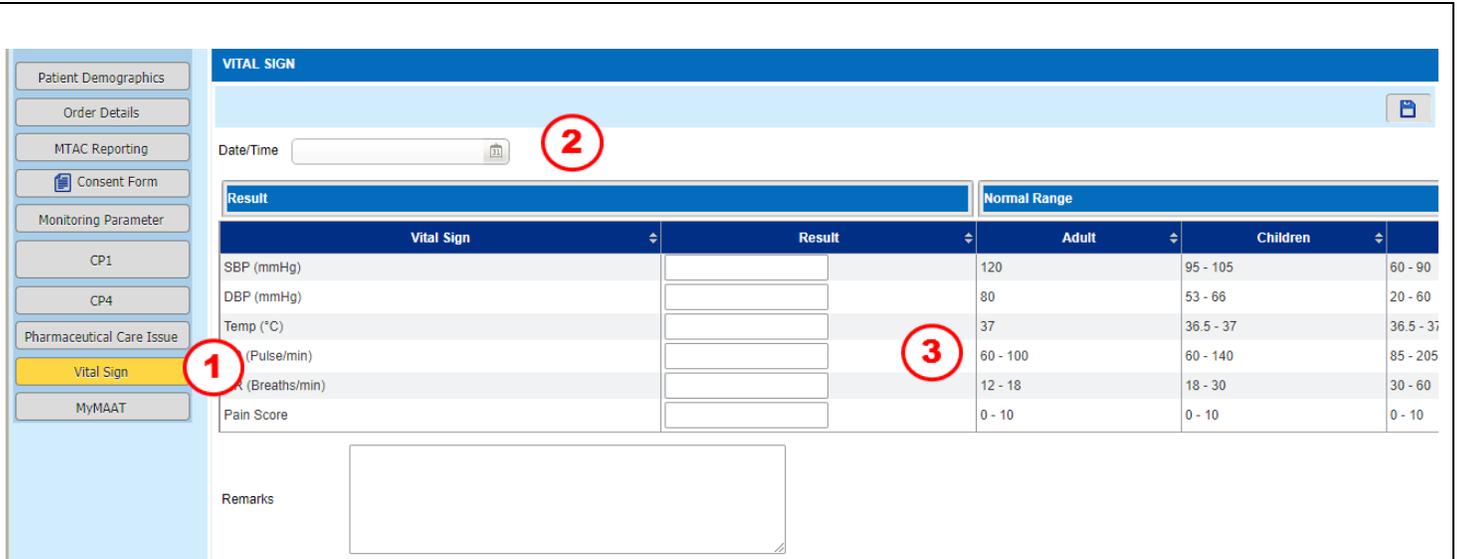
**Figure 3.2.2.4.7 Information Alert Message**

**STEP 7**

Click on the  button to successfully add PCI

### 3.2.2.5 Vital Signs

This function allows user to record vital signs for MTAC patients



Vital Sign	Result	Normal Range	
		Adult	Children
SBP (mmHg)		120	95 - 105
DBP (mmHg)		80	53 - 66
Temp (°C)		37	36.5 - 37
PR (Pulse/min)		60 - 100	60 - 140
RR (Breaths/min)		12 - 18	18 - 30
Pain Score		0 - 10	0 - 10

Figure 3.2.2.5-1 MTAC Reporting Screen

**STEP 1**

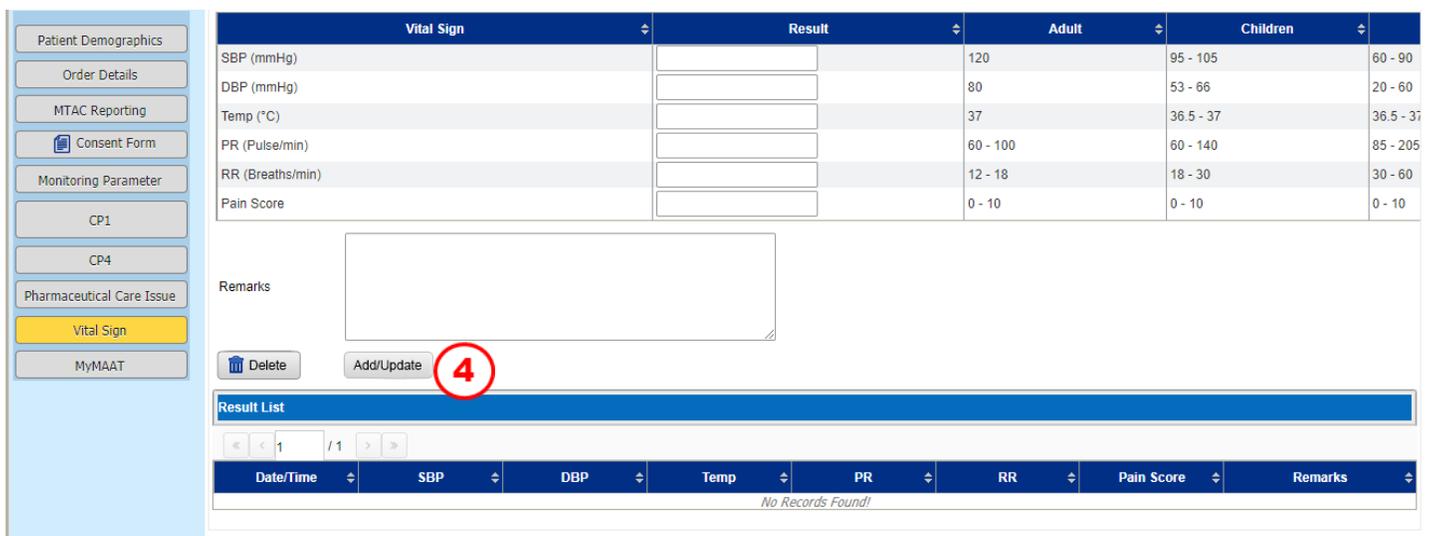
Click on the  button to enter vital sign

**STEP 2**

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

**STEP 3**

Enter the Vital Sign **Result** and **Remarks**



Date/Time	SBP	DBP	Temp	PR	RR	Pain Score	Remarks
No Records Found!							

Figure 3.2.2.5-2 Vital Sign Screen

**STEP 4**

Click the  button and **Result List** will be updated as per Figure 3.2.2.5-2

**VITAL SIGN**

5

Date/Time

Result	Normal Range		
Vital Sign	Result	Adult	Children
SBP (mmHg)	<input type="text"/>	120	95 - 105
DBP (mmHg)	<input type="text"/>	80	53 - 66
Temp (°C)	<input type="text"/>	37	36.5 - 37
PR (Pulse/min)	<input type="text"/>	60 - 100	60 - 140
RR (Breaths/min)	<input type="text"/>	12 - 18	18 - 30
Pain Score	<input type="text"/>	0 - 10	0 - 10

Remarks

Delete Add/Update

**Result List**

<< 1 / 1 >> [ 1 - 1 / 1 ]

Date/Time	SBP	DBP	Temp	PR	RR	Pain Score	Remarks
18/08/2021 08:33 PM	120	80	37	70	14	0	Patient is stable

Figure 3.2.2.5-3 Monitoring Parameter Screen

**STEP 5**

Click on the button to save the record

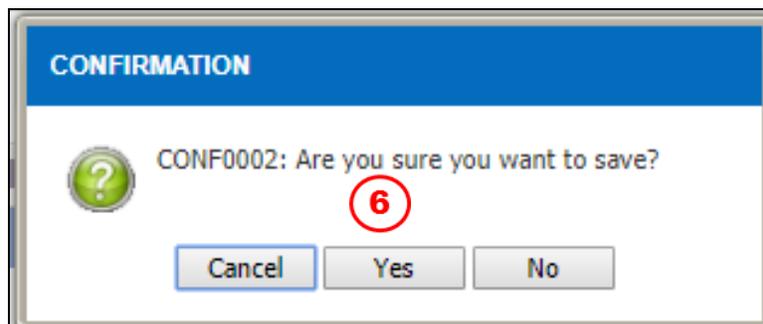


Figure 3.2.2.5-4 Confirmation Alert Message

**STEP 6**

Click on the Yes button to confirm

**Note**

To delete the record, double click the Result List and click the button.

### 3.2.2.6 MyMAAT

This function allows user to record adherence level of patients based on provided assessment

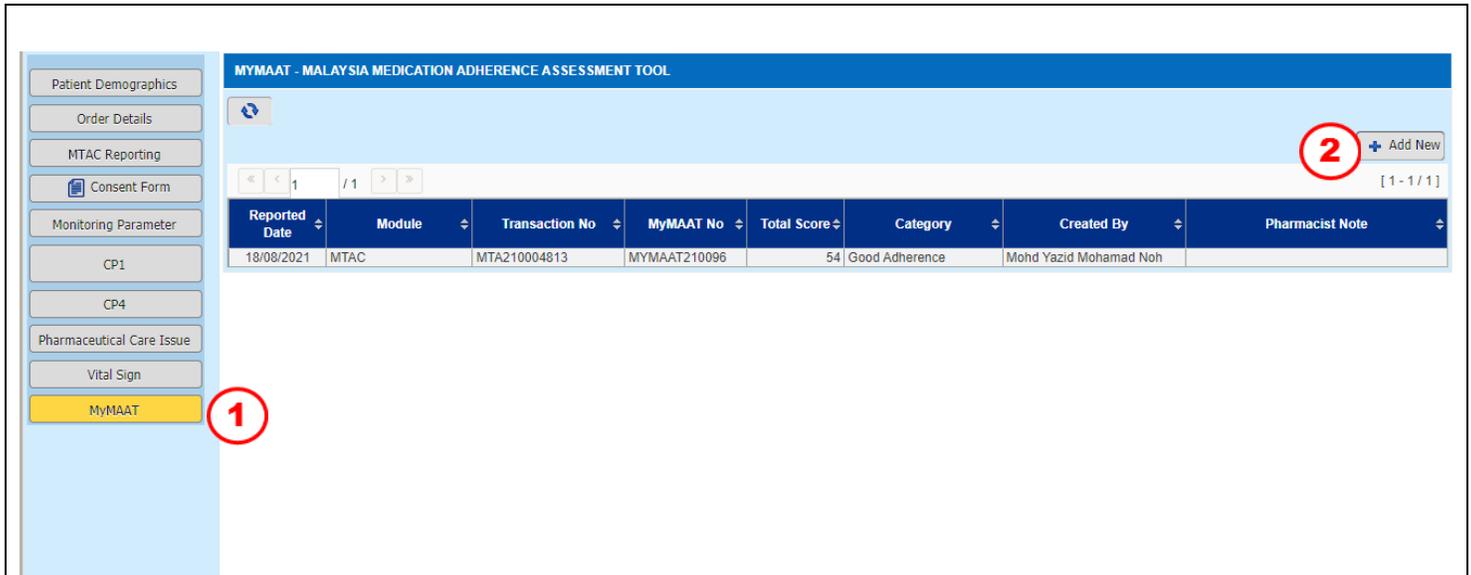


Figure 3.2.2.6-1 MTAC Reporting Screen

**STEP 1**

Click on the **MyMAAT** button to enter MyMAAT screen

**STEP 2**

Click on the **+ Add New** button to add new record and system will display as per Figure 3.2.2.6-2

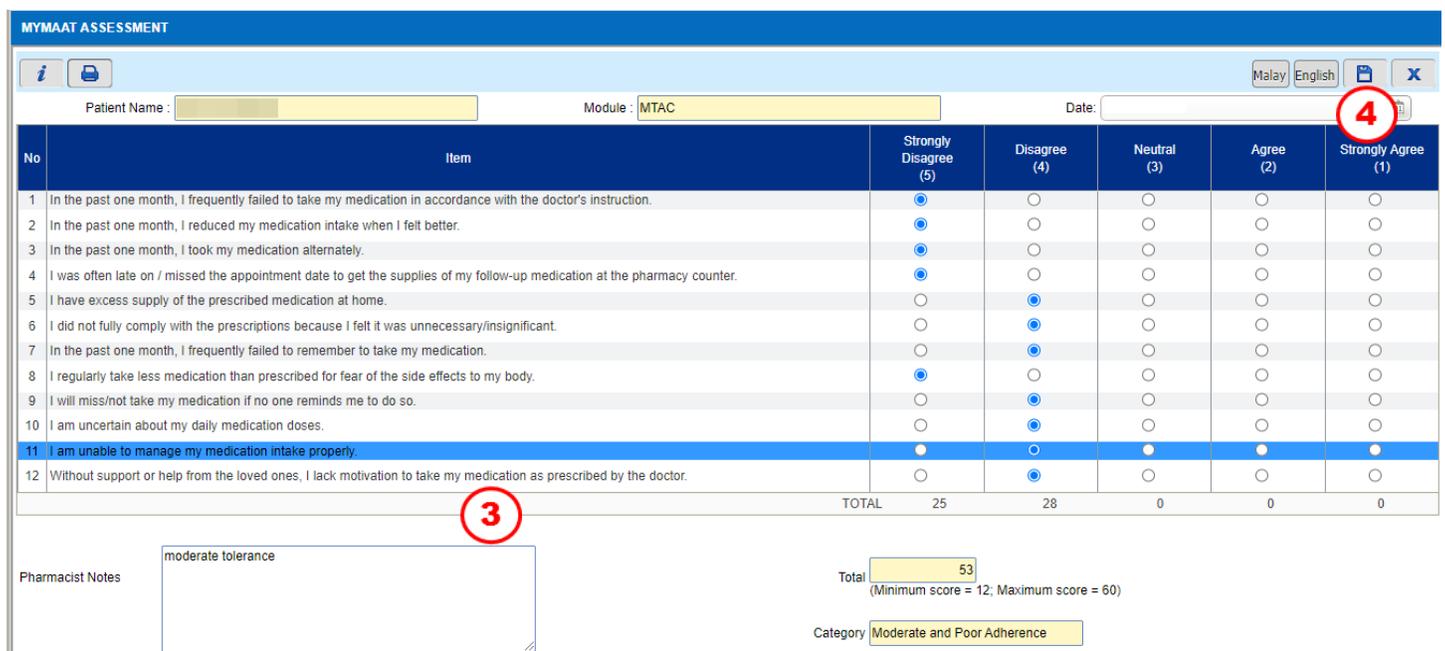


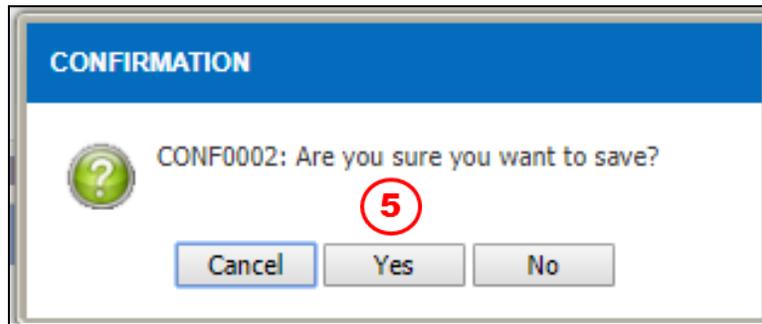
Figure 3.2.2.6-2 MYMAAT Assessment Screen

**STEP 3**

Fill up the assessment and **Pharmacist Notes** and system will generate the **Total score** and **Category**

**STEP 4**

Click on the  button to save the record

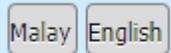


**Figure 3.2.2.6-3 Confirmation Alert Message**

**STEP 5**

Click on the  button to confirm

**Note**

- Click at  button to view assessment in Malay Language or English language as per Figure 3.2.2.6-2
- Click on the  button to print as per Figure 3.2.2.6-2 and system will display Bahagian 1 and Bahagian 2 as per Figure 3.2.2.6-4 and Figure 3.2.2.6-5



**KEMENTERIAN KESIHATAN MALAYSIA**

**Hospital Pakar Sultanah Fatimah**

**ALAT PENGUKURAN TAHAP KEPATUHAN PESAKIT TERHADAP PENGAMBILAN UBAT DI MALAYSIA  
(MyMAAT)**

Nama Pesakit		MRN	HPSF00002944
		Tarikh	18/08/2021
No Kad Pengenalan		Lokasi	KLINIK PAKAR PERUBATAN

**Bahagian I: Persepsi Tahap Kepatuhan Pesakit Terhadap Pengambilan Ubat-Ubatan**

Bil	Perkara	Sangat Tidak Setuju	Tidak Setuju	Neutral	Setuju	Sangat Setuju
		5	4	3	2	1
1	Dalam sebulan yang lepas, saya kerap tidak mengambil ubat seperti yang diarahkan oleh doktor.	✓				
2	Dalam sebulan yang lepas, saya mengurangkan pengambilan ubat apabila berasa sihat.	✓				
3	Dalam sebulan yang lepas, saya mengambil ubat secara berselang-seli.	✓				
4	Saya sering terlewat/terlepas untuk temujanji pengambilan ubat susulan di kaunter farmasi.	✓				
5	Daripada bekalan ubat yang diterima, saya mempunyai banyak lebihan ubat di rumah.		✓			
6	Saya hanya mengambil sebahagian sahaja daripada ubat yang diberikan kerana merasakan ianya tidak perlu/tidak penting.		✓			
7	Dalam sebulan yang lepas, saya sering terlupa untuk mengambil ubat saya.		✓			
8	Saya sering mengurangkan pengambilan ubat kerana bimbang akan kesan sampingnya terhadap badan.	✓				
9	Saya tidak mengambil ubat apabila tiada sesiapa mengingatkan saya.		✓			
10	Saya tidak begitu pasti tentang dos ubat yang perlu diambil setiap hari.		✓			
11	Saya tidak boleh menguruskan pengambilan ubat saya dengan baik.		✓			
12	Ketiadaan sokongan atau pertolongan dari orang tersayang menyebabkan saya tidak bermotivasi untuk mengambil ubat yang diberikan oleh doktor.		✓			
Jumlah		25	28	0	0	0
(Skor minimum = 12; Skor maksimum = 60)		53				

**Figure 3.2.2.6-4 Printed Report Bahagian 1**



**KEMENTERIAN KESIHATAN MALAYSIA**

**Hospital Pakar Sultanah Fatimah**

**ALAT PENGUKURAN TAHAP KEPATUHAN PESAKIT TERHADAP PENGAMBILAN UBAT DI MALAYSIA  
(MyMAAT)**

**Bahagian II : Kategori Kepatuhan Pesakit Terhadap Pengambilan Ubat-Ubatan**

Kategori kepatuhan mengikut jumlah skor adalah seperti berikut:

Kategori	Jumlah Skor
Kepatuhan Baik	$\geq 54$
Kepatuhan Sederhana dan Lemah	$< 54$

**Bahagian III : Rumusan Tahap Kepatuhan Pesakit Terhadap Pengambilan Ubat-Ubatan**

Jumlah Skor	53
Kategori Kepatuhan	Kepatuhan Baik
Nota Pegawai Farmasi	moderate tolerance

Pharmacist

: [REDACTED]

Date : 18/08/2021

Module : MTAC

Figure 3.2.2.6-4 Printed Report Bahagian 1

### 3.2.3 Create New MTAC Reporting With Specific Details

#### 3.2.3.1 Chronic Kidney Disease

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

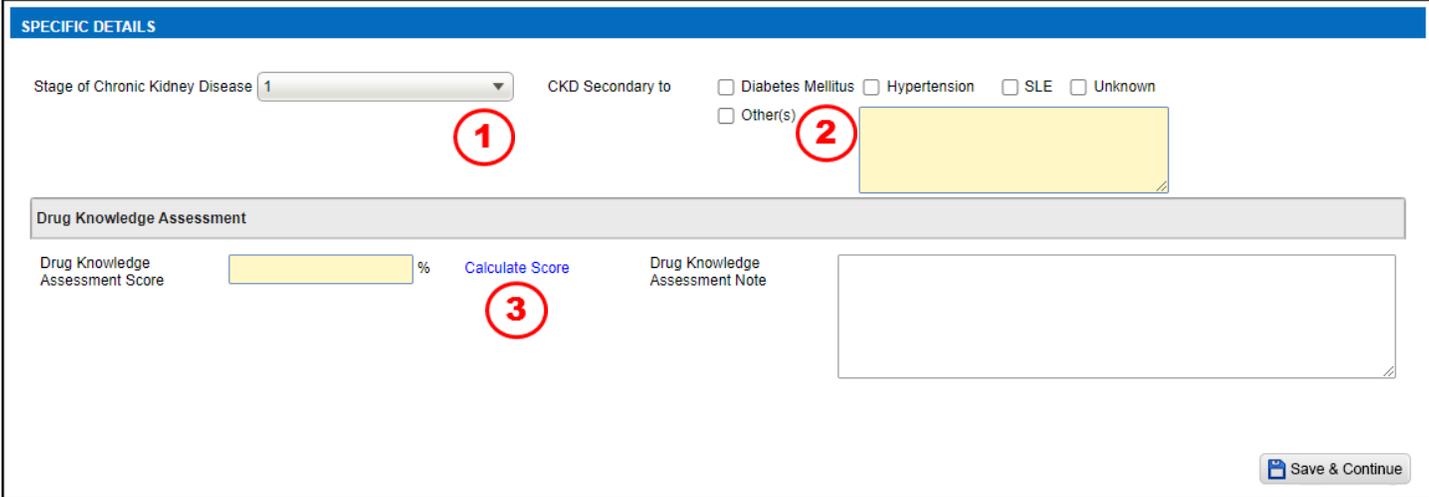


Figure 3.2.3.1-1 Specific Details – Chronic Kidney Disease

#### **Note**

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

#### **STEP 1**

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

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

#### **STEP 2**

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

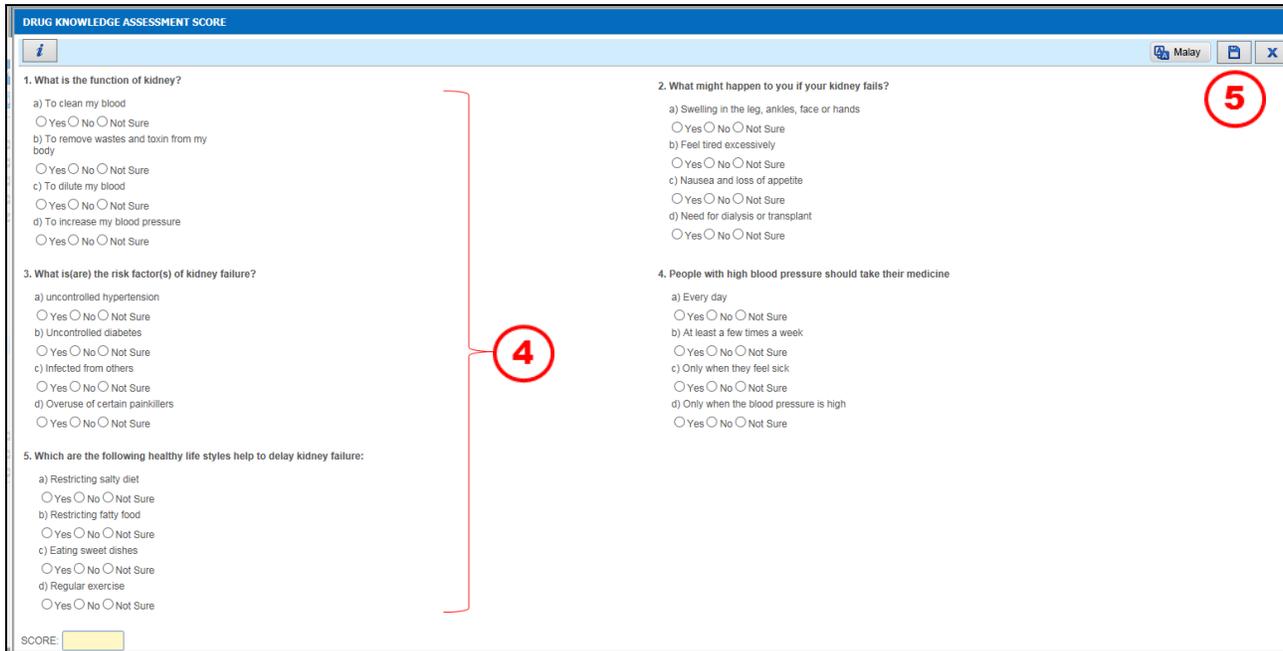
- Diabetes Mellitus
- Hypertension
- SLE
- Unknown
- Other(s)

#### **Note**

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

#### **STEP 3**

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



**DRUG KNOWLEDGE ASSESSMENT SCORE**

1. What is the function of kidney?  
a) To clean my blood  
 Yes  No  Not Sure  
b) To remove wastes and toxin from my body  
 Yes  No  Not Sure  
c) To dilute my blood  
 Yes  No  Not Sure  
d) To increase my blood pressure  
 Yes  No  Not Sure

3. What is(are) the risk factor(s) of kidney failure?  
a) uncontrolled hypertension  
 Yes  No  Not Sure  
b) Uncontrolled diabetes  
 Yes  No  Not Sure  
c) Infected from others  
 Yes  No  Not Sure  
d) Overuse of certain painkillers  
 Yes  No  Not Sure

5. Which are the following healthy life styles help to delay kidney failure:  
a) Restricting salty diet  
 Yes  No  Not Sure  
b) Restricting fatty food  
 Yes  No  Not Sure  
c) Eating sweet dishes  
 Yes  No  Not Sure  
d) Regular exercise  
 Yes  No  Not Sure

2. What might happen to you if your kidney fails?  
a) Swelling in the leg, ankles, face or hands  
 Yes  No  Not Sure  
b) Feel tired excessively  
 Yes  No  Not Sure  
c) Nausea and loss of appetite  
 Yes  No  Not Sure  
d) Need for dialysis or transplant  
 Yes  No  Not Sure

4. People with high blood pressure should take their medicine  
a) Every day  
 Yes  No  Not Sure  
b) At least a few times a week  
 Yes  No  Not Sure  
c) Only when they feel sick  
 Yes  No  Not Sure  
d) Only when the blood pressure is high  
 Yes  No  Not Sure

SCORE:

Figure 3.2.3.1-2 Drug Knowledge Assessment Score

#### STEP 4

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

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

#### Note

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

#### STEP 5

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

#### STEP 6

Click on the  button to confirm save record

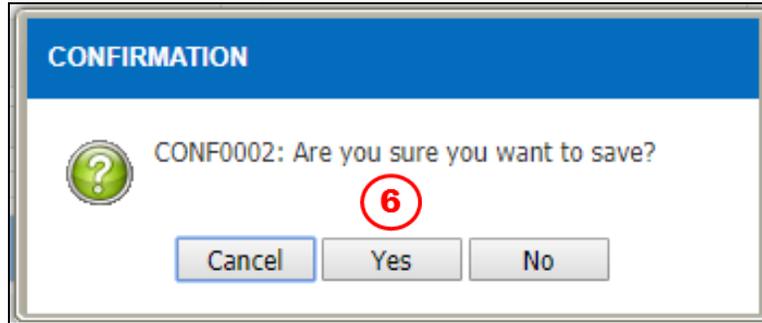


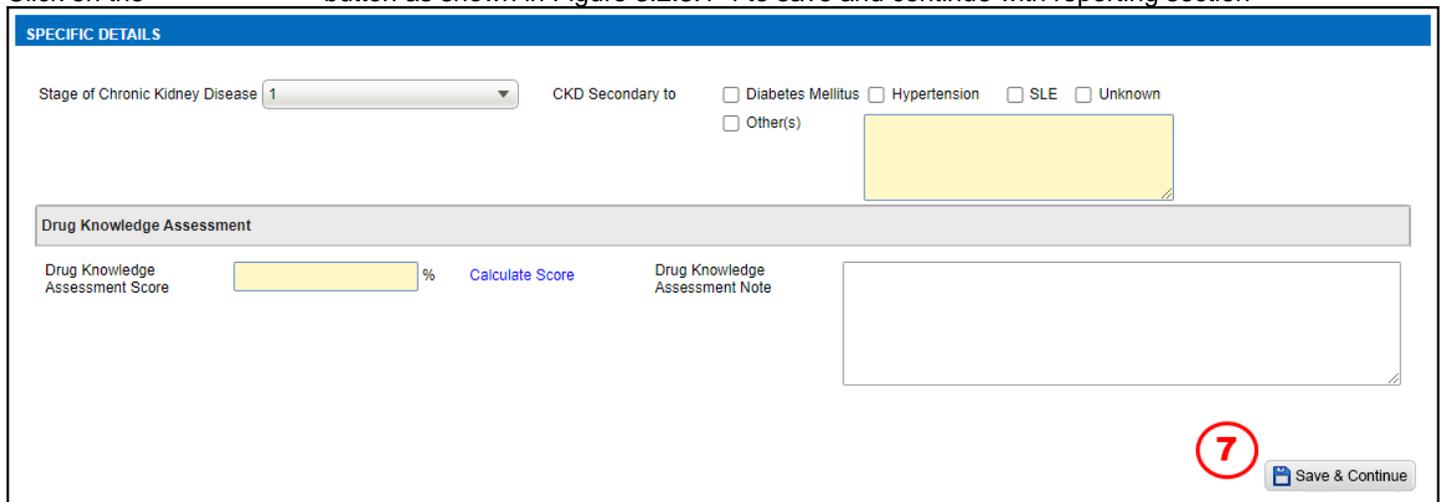
Figure 3.2.3.1-3 Confirmation Alert Message

**Note**

Insert Drug Knowledge Assessment Note in the free text as per Figure 3.2.3.1-4

**STEP 7**

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



A screenshot of a web form titled "SPECIFIC DETAILS". The form includes a dropdown menu for "Stage of Chronic Kidney Disease" with the value "1". To the right, there are checkboxes for "CKD Secondary to" with options: "Diabetes Mellitus", "Hypertension", "SLE", "Unknown", and "Other(s)". Below this is a yellow text area. A section titled "Drug Knowledge Assessment" contains a "Drug Knowledge Assessment Score" field with a percentage sign and a "Calculate Score" button. To the right is a "Drug Knowledge Assessment Note" text area. At the bottom right, there is a "Save & Continue" button circled in red with the number "7" inside the circle.

Figure 3.2.3.1-4 Specific Details – Chronic Kidney Disease

**STEP 8**

Click on the  button to confirm save record

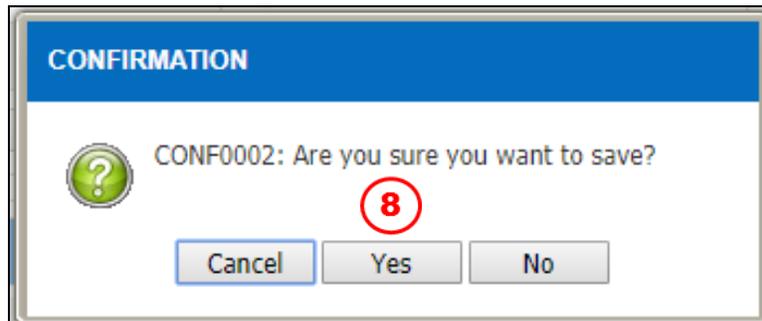


Figure 3.2.3.1-5 Confirmation Alert Message

### STEP 9

Click on the  button to confirm record

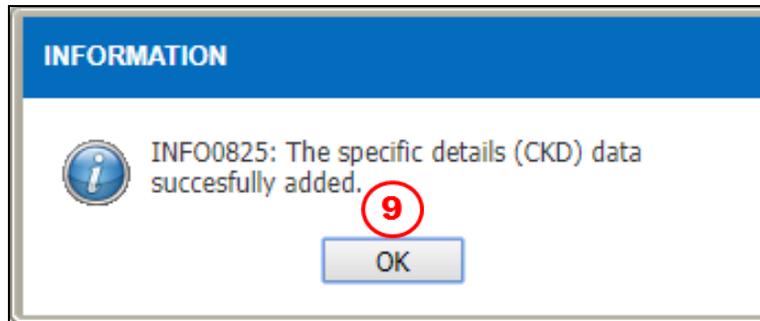


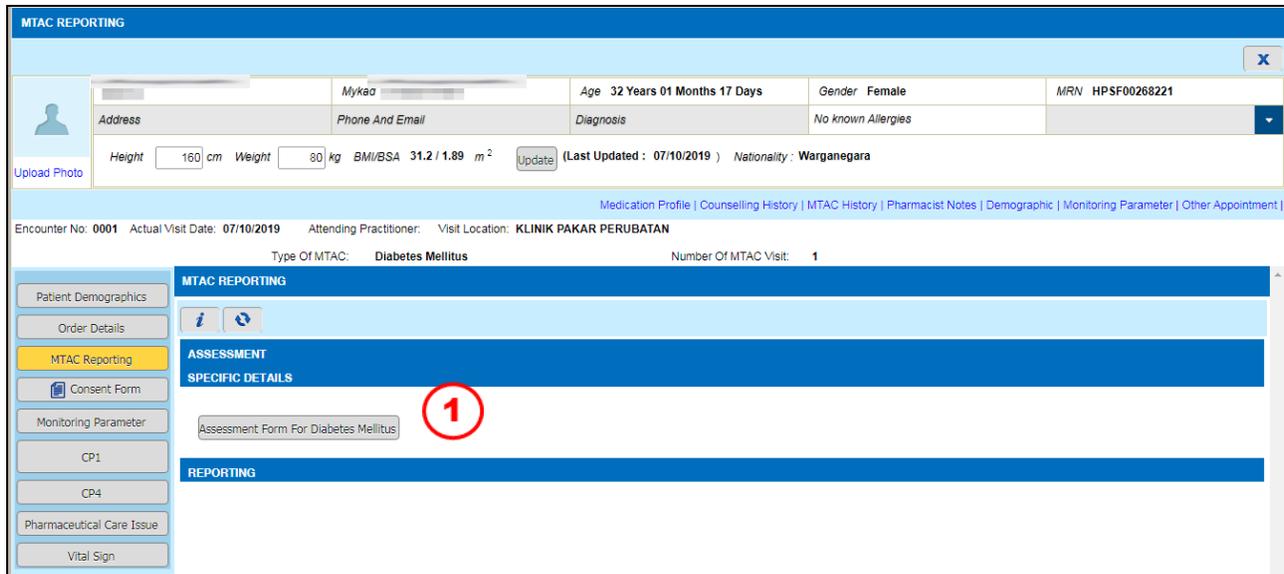
Figure 3.2.3.1-6 Information alert message

### Note

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

### 3.2.3.2 Diabetes Mellitus

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



The screenshot displays the 'MTAC REPORTING' interface. At the top, there is a patient information summary including name (Mykaa), age (32 Years 01 Months 17 Days), gender (Female), and MRN (HPSF00268221). Below this, there are fields for address, phone and email, diagnosis, and allergies. A section for physical attributes shows height (160 cm), weight (80 kg), and BMI/BSA (31.2 / 1.89 m<sup>2</sup>), with an 'Update' button and a note '(Last Updated : 07/10/2019)'. The interface also shows the encounter number (0001), actual visit date (07/10/2019), attending practitioner, and visit location (KLINIK PAKAR PERUBATAN). The 'Type Of MTAC' is 'Diabetes Mellitus' and the 'Number Of MTAC Visit' is '1'. On the left, there is a navigation menu with buttons for Patient Demographics, Order Details, MTAC Reporting (highlighted), Consent Form, Monitoring Parameter, CP1, CP4, Pharmaceutical Care Issue, and Vital Sign. The main content area is divided into sections: 'MTAC REPORTING', 'ASSESSMENT', 'SPECIFIC DETAILS', and 'REPORTING'. In the 'SPECIFIC DETAILS' section, there is a button labeled 'Assessment Form For Diabetes Mellitus' which is circled in red with the number '1'.

Figure 3.2.3.2-1 Specific Details - Diabetes Mellitus

#### Note

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

#### STEP 1

Click on the  button to view the specific details

#### STEP 2

Select the check box to answer the question(s)

#### Note

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

**DIABETES MELLITUS ASSESSMENT**

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

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

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

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

3. Penyakit kencing manis disebabkan oleh factor berikut?

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

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

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

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

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

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

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

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

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

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

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

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

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

10. Bagaimana cara anda mengambil ubat-ubatan berkenaan?

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

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

- Berat badan meningkat
- Kembang perut
- Loya / muntah
- Clirt-birt / sembelit
- Perut berasa pedih /tidak selesa

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

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

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

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

Sila jawab soalan berikut, sekiranya anda mengambil suntikan insulin?

14. Dimanakah anda menyimpan Stok insulin?

- Dalam peti sejuk beku (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 3.2.3.2-2 Diabetes Mellitus Assessment

STEP 3

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

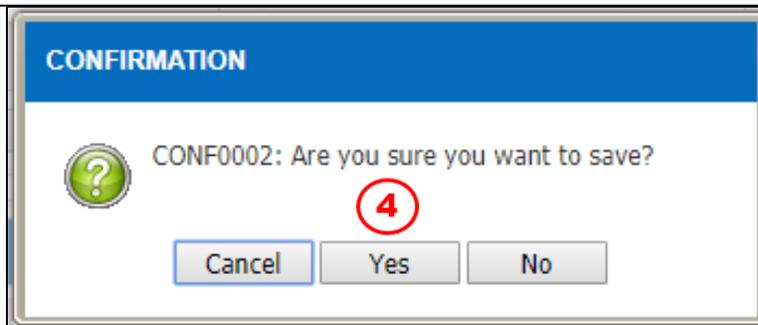


Figure 3.2.3.2-3 Confirmation Alert Message

#### STEP 4

Click on the  button to confirm save record

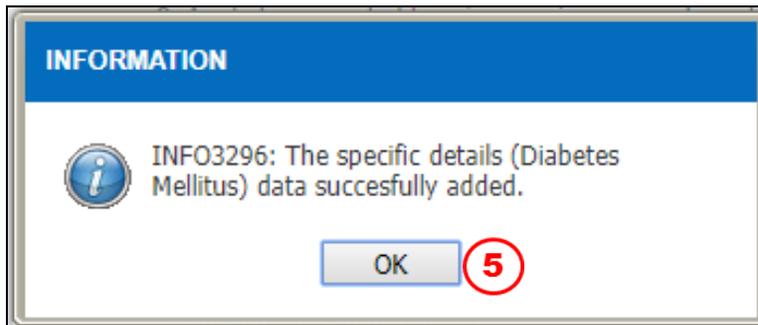


Figure 3.2.3.2-4 Information Alert Message

#### STEP 5

Click on the  button to confirm record

#### **Note**

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

### 3.2.3.3 Dialysis

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

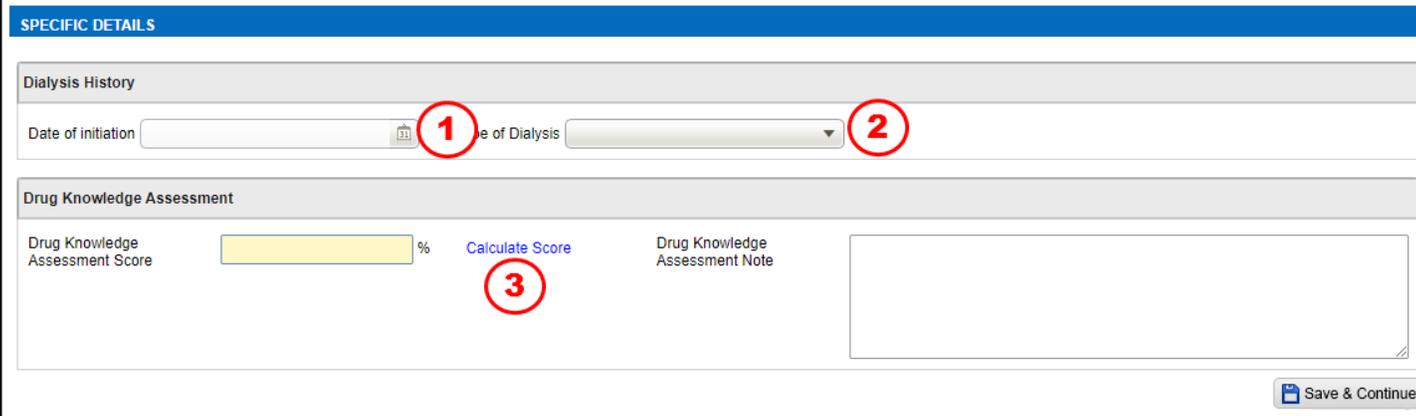


Figure 3.2.3.3-1 Specific Details - Dialysis

#### **Note**

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

#### **Dialysis History**

##### **STEP 1**

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

##### **STEP 2**

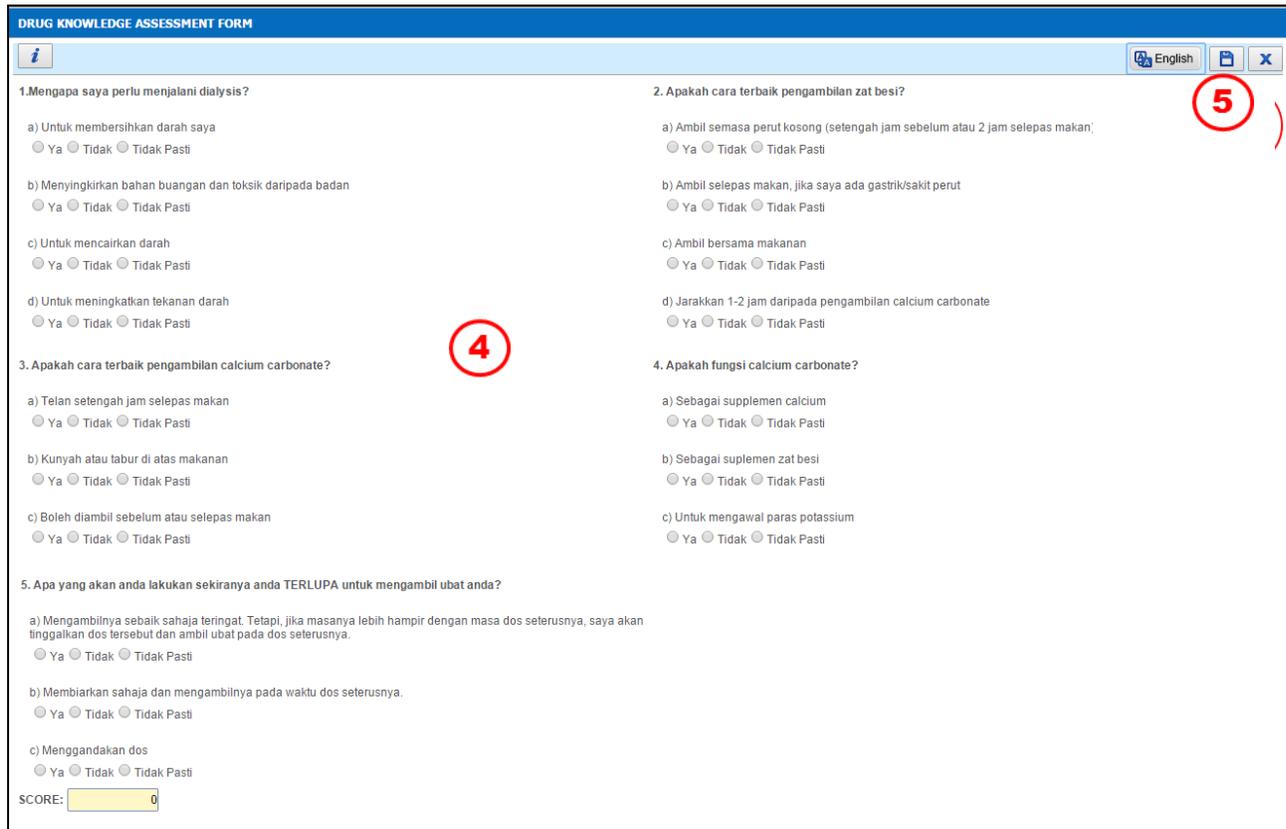
Select **Type of Dialysis** from the dropdown box

- APD
- CAPD
- HD

#### **Drug Knowledge Assessment**

##### **STEP 3**

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



**DRUG KNOWLEDGE ASSESSMENT FORM**

English

1. Mengapa saya perlu menjalani dialysis?

a) Untuk membersihkan darah saya  
 Ya  Tidak  Tidak Pasti

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

c) Untuk mencairkan darah  
 Ya  Tidak  Tidak Pasti

d) Untuk meningkatkan tekanan darah  
 Ya  Tidak  Tidak Pasti

2. Apakah cara terbaik pengambilan zat besi?

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

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

c) Ambil bersama makanan  
 Ya  Tidak  Tidak Pasti

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

3. Apakah cara terbaik pengambilan calcium carbonate?

a) Telan setengah jam selepas makan  
 Ya  Tidak  Tidak Pasti

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

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

4. Apakah fungsi calcium carbonate?

a) Sebagai suplemen calcium  
 Ya  Tidak  Tidak Pasti

b) Sebagai suplemen zat besi  
 Ya  Tidak  Tidak Pasti

c) Untuk mengawal paras potassium  
 Ya  Tidak  Tidak Pasti

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

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

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

c) Menggandakan dos  
 Ya  Tidak  Tidak Pasti

SCORE:

Figure 3.2.3.3-2 Specific Details - Dialysis

#### STEP 4

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

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

#### Note

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

#### STEP 5

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

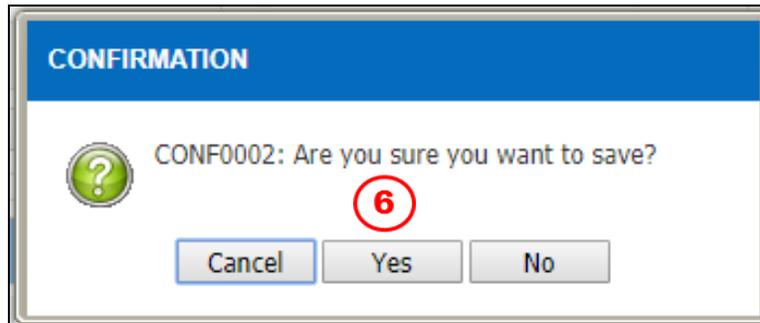


Figure 3.2.3.3-3 Confirmation Alert Message

**STEP 6**

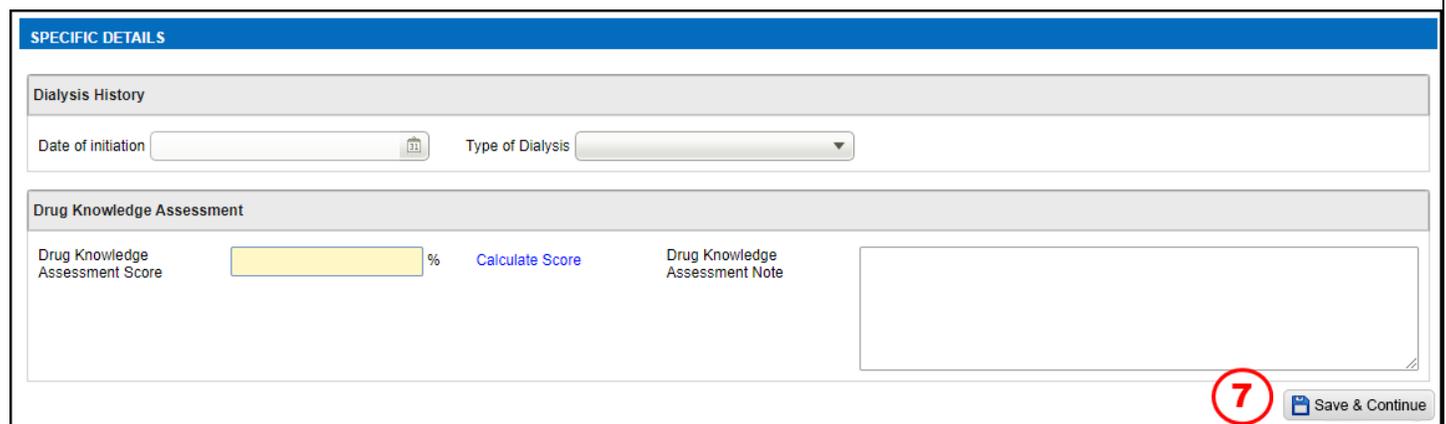
Click on the  button to confirm save record

**Note**

Insert Drug Knowledge Assessment Note in the free text as per Figure 3.2.3.3-4

**STEP 7**

Click on the  button as shown in Figure 3.2.3.3-4 to save and continue with reporting section



The "SPECIFIC DETAILS" form is divided into two main sections. The top section, "Dialysis History", contains a "Date of initiation" text box with a calendar icon and a "Type of Dialysis" dropdown menu. The bottom section, "Drug Knowledge Assessment", features a "Drug Knowledge Assessment Score" label next to a yellow progress bar and a percentage sign, followed by a "Calculate Score" button. To the right is a "Drug Knowledge Assessment Note" text area. A red circle with the number "7" is placed above the "Save & Continue" button at the bottom right of the form.

Figure 3.2.3.3-4 Specific Details

**STEP 8**

Click on the  button to confirm save record

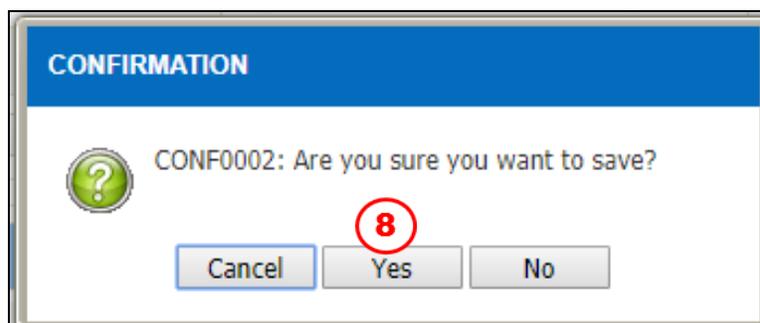


Figure 3.2.3.3-5 Confirmation Alert Message

### STEP 9

Click on the  button to confirm record

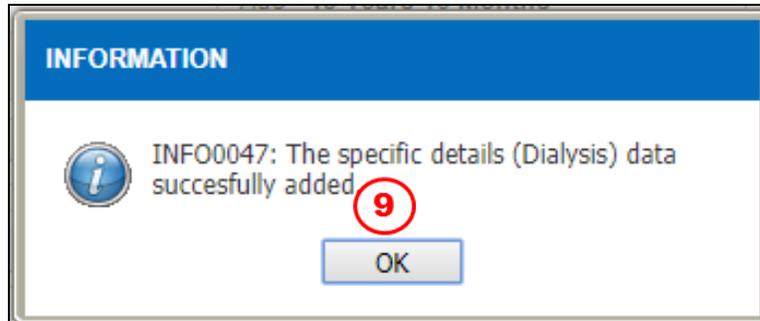


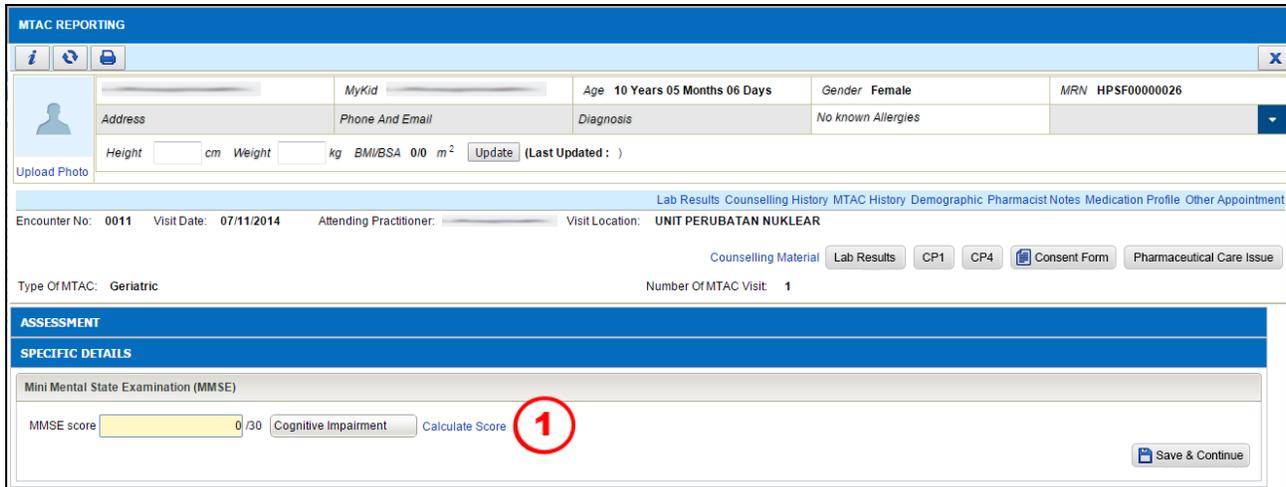
Figure 3.2.3.3-6 Information alert message

### **Note**

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

### 3.2.3.4 Geriatric

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



The screenshot displays the 'MTAC REPORTING' interface. At the top, there are navigation icons and a close button. Below this, patient information is shown in a grid: MyKid, Age (10 Years 05 Months 06 Days), Gender (Female), MRN (HPSF0000026), Address, Phone And Email, Diagnosis, and No known Allergies. There are also fields for Height (cm), Weight (kg), and BMI/BSA (0/0 m<sup>2</sup>) with an 'Update' button and '(Last Updated : )' text. A 'Upload Photo' button is present. Below the patient info, there are links for 'Lab Results', 'Counselling History', 'MTAC History', 'Demographic', 'Pharmacist Notes', 'Medication Profile', and 'Other Appointment'. Encounter details include: Encounter No: 0011, Visit Date: 07/11/2014, Attending Practitioner, and Visit Location: UNIT PERUBATAN NUKLEAR. There are buttons for 'Counselling Material', 'Lab Results', 'CP1', 'CP4', 'Consent Form', and 'Pharmaceutical Care Issue'. The 'Type Of MTAC' is 'Geriatric' and 'Number Of MTAC Visit' is '1'. The 'ASSESSMENT' section is expanded to show 'SPECIFIC DETAILS'. Under 'Mini Mental State Examination (MMSE)', there is an 'MMSE score' field with '0/30', a 'Cognitive impairment' radio button, and a 'Calculate Score' button circled in red with a '1' next to it. A 'Save & Continue' button is at the bottom right.

Figure 3.2.3.4-1 Specific Details - Geriatric

#### **Note**

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

#### **STEP 1**

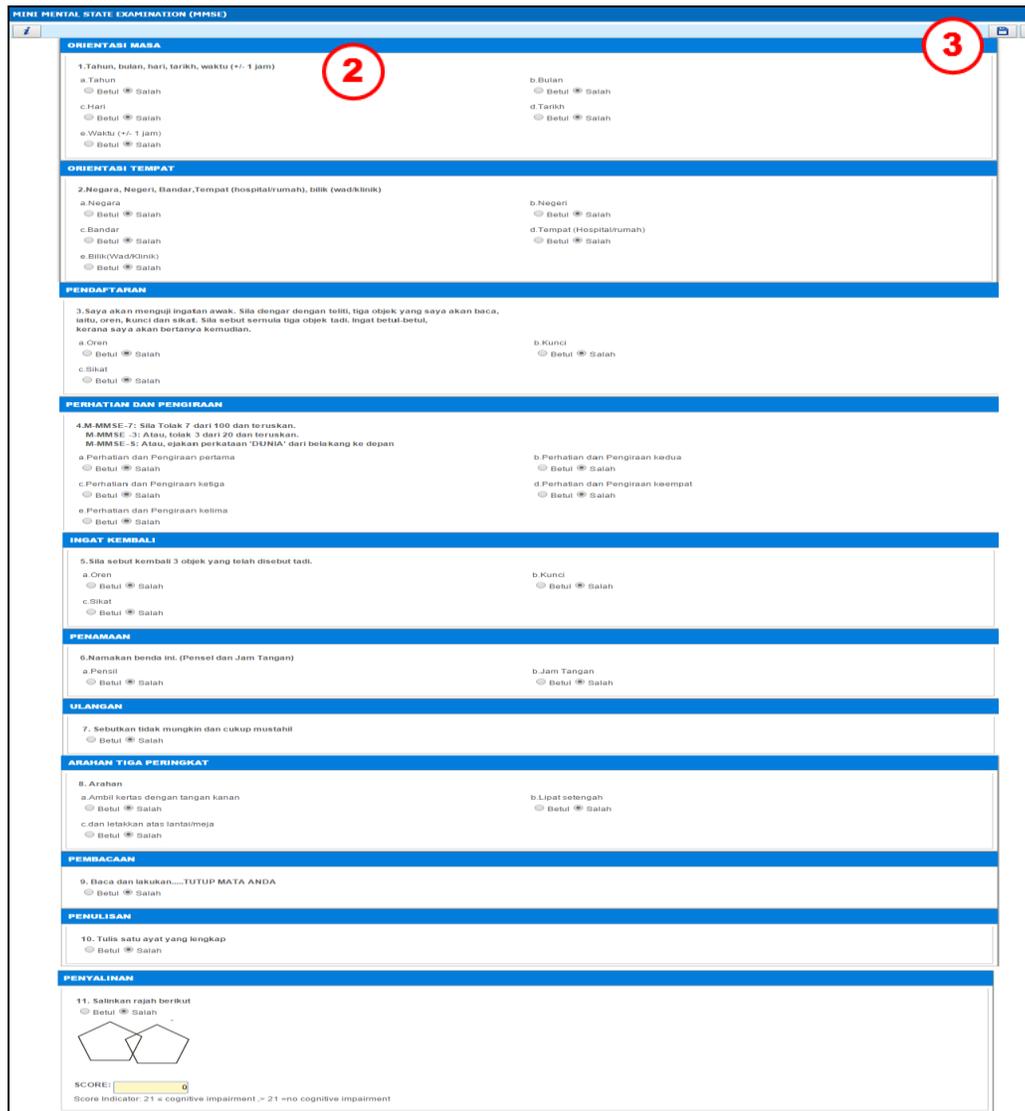
Click on the [Calculate Score](#) hyperlink for **MMSE Score** and 'Mini Mental State Examination (MMSE) – Orientasi Masa' window will be displayed as shown in Figure 3.2.3.4-2

#### **STEP 2**

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

#### **Note**

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



**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 (wad/kliniK)

a. Negara  
 Betul  Salah

b. Negeri  
 Betul  Salah

c. Bandar  
 Betul  Salah

d. Tempat (Hospital/umah)  
 Betul  Salah

e. Bilik (Wad/Klinik)  
 Betul  Salah

**PENGAFTARAN**

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. Oron  
 Betul  Salah

b. Kunci  
 Betul  Salah

c. Sikat  
 Betul  Salah

d. Kunci  
 Betul  Salah

**PERHATIAN DAN PENGIRAAN**

4. M-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. Oron  
 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. Salinlah rajah berikut

Betul  Salah



SCORE:

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

Figure 3.2.3.4-2 Mini Mental State Examination (MMSE)

**STEP 3**

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

**STEP 4**

Click on the  button to confirm save record

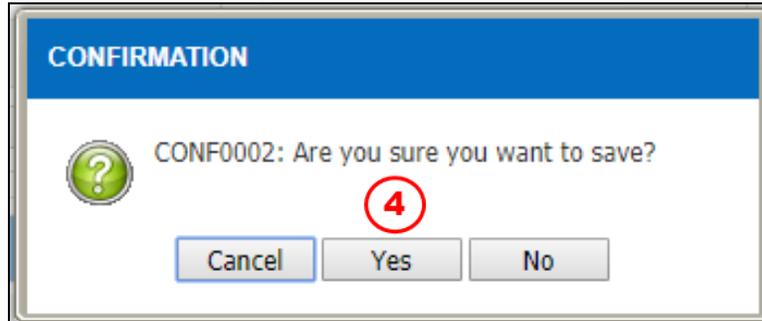
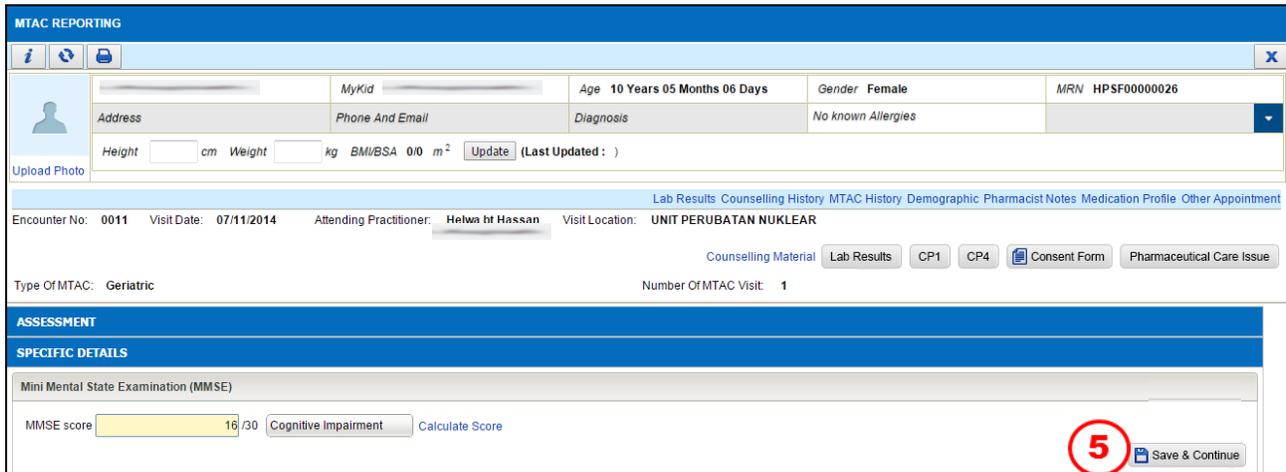


Figure 3.2.3.4-3 Confirmation Alert Message

### STEP 5

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



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

Figure 3.2.3.4-4 Specific Details - Geriatric

### STEP 6

Click on the  button to confirm save record

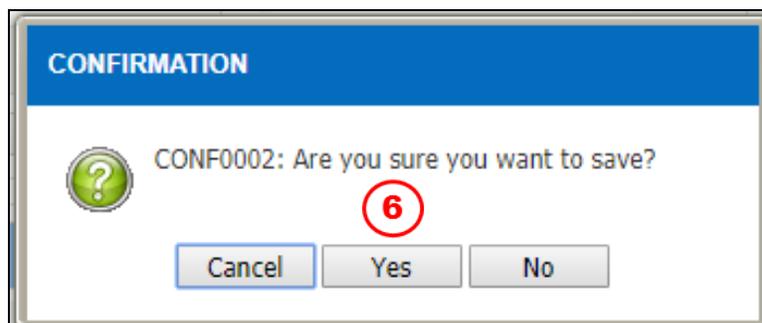


Figure 3.2.3.4-5 Confirmation Alert Message

### STEP 7

Click on the  button to confirm record

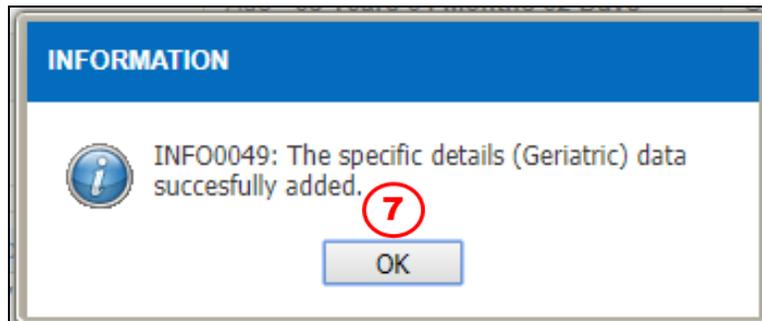


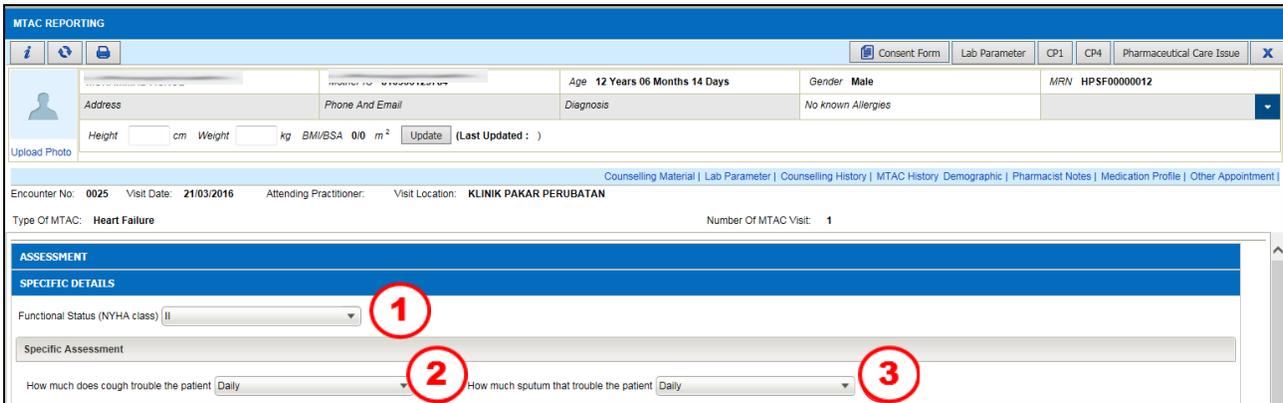
Figure 3.2.3.4-6 Information alert message

### **Note**

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

### 3.2.3.5 Heart Failure

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



The screenshot displays the 'MTAC REPORTING' interface. At the top, there are navigation tabs for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this, patient information is shown, including 'Age 12 Years 06 Months 14 Days', 'Gender Male', and 'MRN HPSF0000012'. The 'Specific Details' section is highlighted in blue and contains three red circles: (1) points to the 'Functional Status (NYHA class)' dropdown menu, (2) points to the 'Specific Assessment' section, and (3) points to the 'How much sputum that trouble the patient' dropdown menu.

Figure 3.2.3.5 Specific Details - Heart Failure

#### Note

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

#### **STEP 1**

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

- I
- II
- III
- IV

#### Specific Assessment

#### **STEP 2**

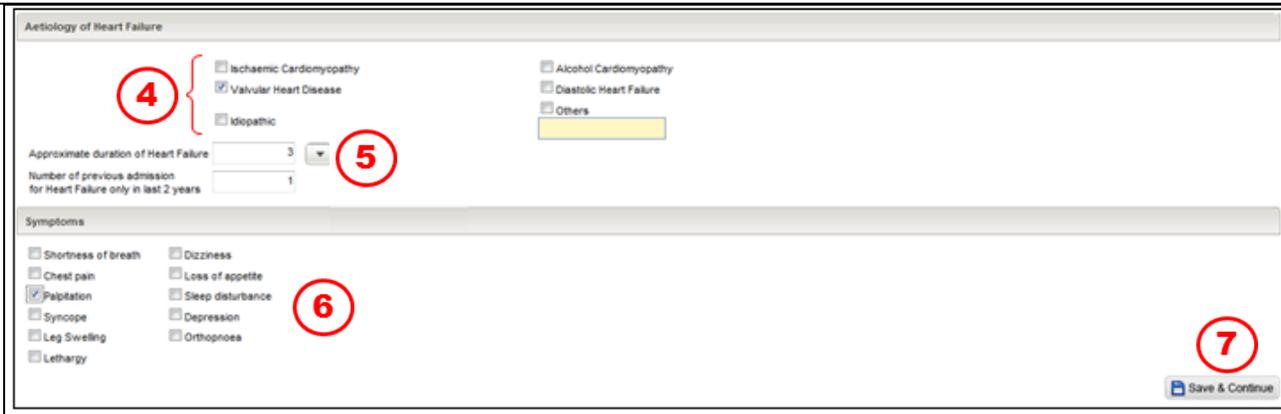
Select **How much does cough trouble the patient** from the drop down box

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

#### **STEP 3**

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

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



The screenshot shows a web form titled "Aetiology of Heart Failure". It contains several sections: "Aetiology of Heart Failure" with checkboxes for Ischaemic Cardiomyopathy, Valvular Heart Disease (checked), Idiopathic, Alcohol Cardiomyopathy, Diastolic Heart Failure, and Others; "Approximate duration of Heart Failure" with a text input field containing "3" and a dropdown arrow (callout 5); "Number of previous admission for Heart Failure only in last 2 years" with a text input field containing "1"; "Symptoms" with checkboxes for Shortness of breath, Chest pain, Palpitation (checked), Syncope, Leg Swelling, Lethargy, Dizziness, Loss of appetite, Sleep disturbance (checked), Depression, and Orthopnoea (callout 6); and a "Save & Continue" button (callout 7). A red circle with the number 4 is placed over the "Aetiology of Heart Failure" section headers.

Figure 3.2.3.5-2 Specific details - Heart Failure

#### STEP 4

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

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

#### **Note**

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

#### STEP 5

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

- Months
- Years

#### STEP 6

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

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

- Depression
- Orthopnea

#### STEP 7

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

#### STEP 8

Click on the  button to confirm save record

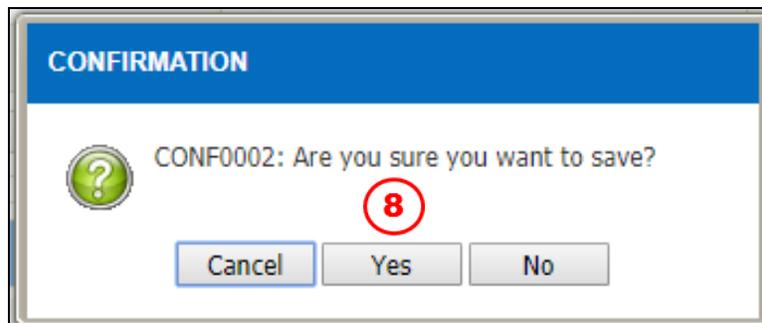


Figure 3.2.3.5-3 Confirmation Alert Message

#### STEP 9

Click on the  button to confirm record

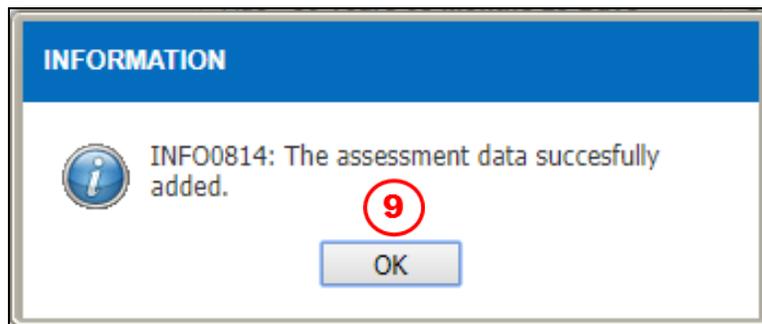


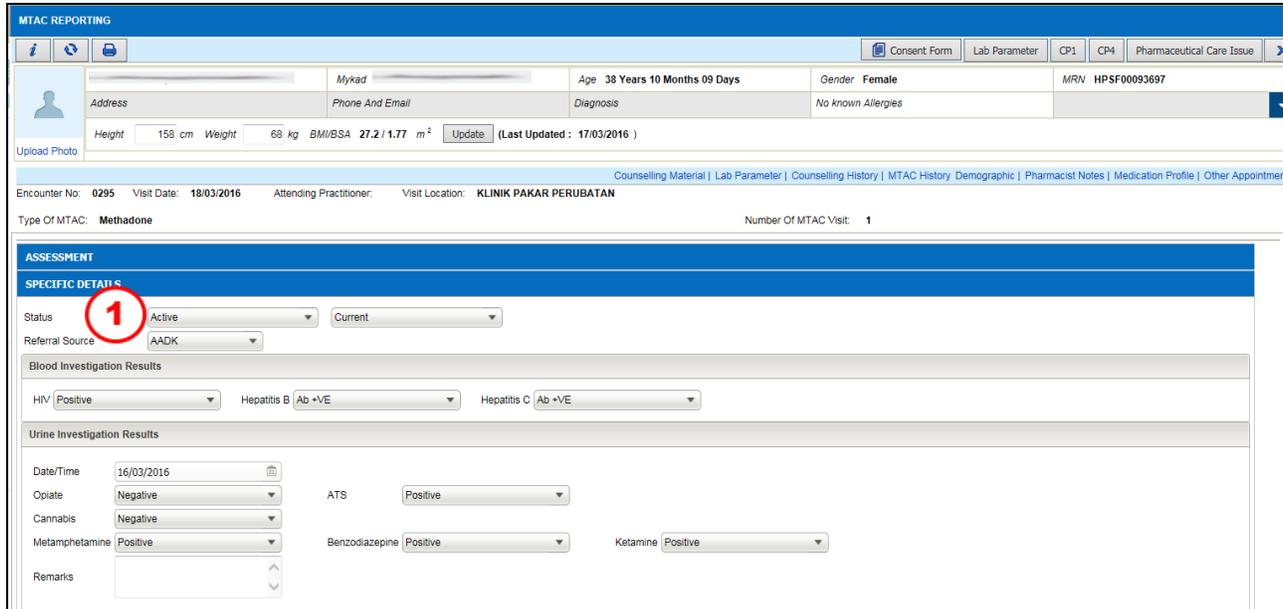
Figure 3.2.3.5-4 Information Alert Message

#### **Note**

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

### 3.2.3.6 Methadone

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



The screenshot shows the 'MTAC REPORTING' interface. At the top, there are navigation tabs for 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this is a patient information section with fields for 'Mykad', 'Age' (38 Years 10 Months 09 Days), 'Gender' (Female), and 'MRN' (HPSF00093697). There are also fields for 'Address', 'Phone And Email', 'Diagnosis', and 'No known Allergies'. A 'Height' field is set to 158 cm, 'Weight' to 68 kg, and 'BMI/BSA' to 27.2 / 1.77 m<sup>2</sup>. An 'Update' button is next to the BMI/BSA field, with a note '(Last Updated : 17/03/2016)'. Below this is a section for 'Encounter No: 0295', 'Visit Date: 18/03/2016', and 'Attending Practitioner: KLINIK PAKAR PERUBATAN'. The 'Type Of MTAC' is 'Methadone' and the 'Number Of MTAC Visit' is '1'. The main section is titled 'ASSESSMENT' and 'SPECIFIC DETAILS'. It includes a 'Status' dropdown menu with 'Active' selected (highlighted with a red circle and the number 1), a 'Referral Source' dropdown menu with 'AADK' selected, and sections for 'Blood Investigation Results' (HIV, Hepatitis B, Hepatitis C) and 'Urine Investigation Results' (Opiate, Cannabis, Metamphetamine, Benzodiazepine, Ketamine, ATS). A 'Remarks' field is also present.

Figure 3.2.3.6-1 Specific Details - Methadone

**Note**

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

**STEP 1**

Select **Status** from the drop down box

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

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

- AADK
- NGO
- NSEP
- Others
- Walk In

**Note**

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

### Blood Investigation Results

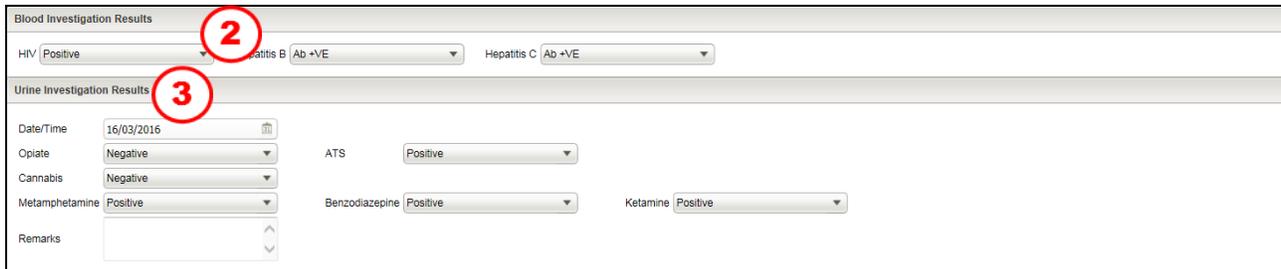


Figure 3.2.3.6-2 Specific Details – Methadone

#### STEP 2

Select **HIV** from the drop down box

- Negative
- Positive
- Unknown

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

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

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

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

### Urine Investigation Results

#### STEP 3

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

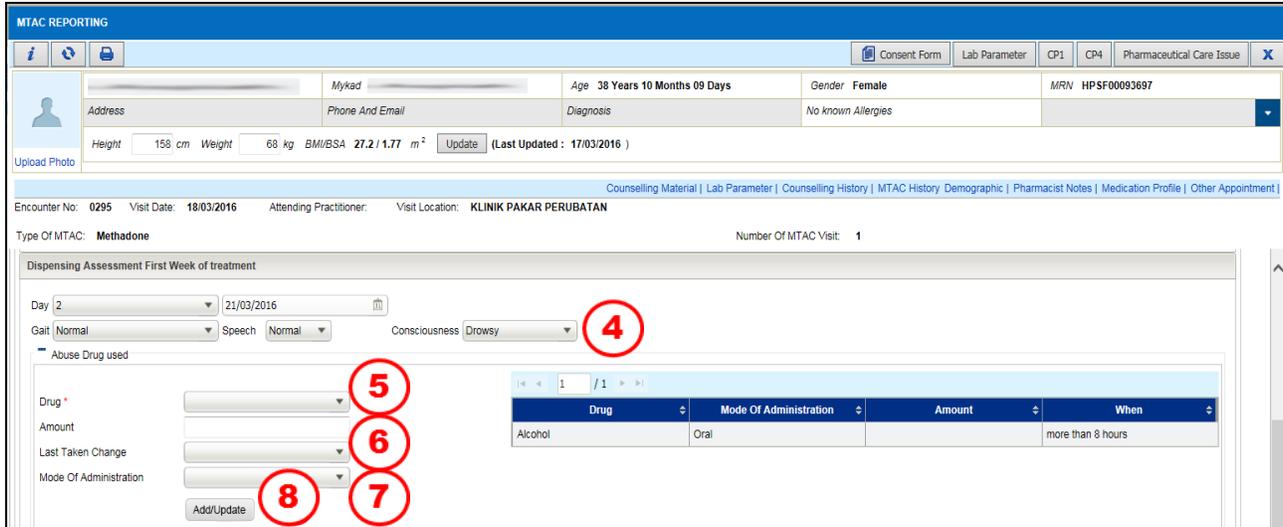
Select **Opiate**, **ATS**, **Cannabis**, **Methamphetamine**, **Benzodiazepine**, and **Ketamine** from the drop down box

- Negative
- Positive

#### Note

Enter **Remarks** if necessary

### Dispensing Assessment First Week of Treatment



MTAC REPORTING

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

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

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

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

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

Type Of MTAC: Methadone Number Of MTAC Visit: 1

Dispensing Assessment First Week of treatment

Day: 2 | 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 3.2.3.6-3 Specific Details – Methadone

#### STEP 4

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

Select **Gait** from the drop down box

- Impaired
- Normal

Select **Speech** from the drop down box

- Normal
- Pressured
- Slurred

Select **Consciousness** from the drop down box

- Agitated
- Alert
- Drowsy

## **Abuse Drug used**

### **STEP 5**

Select **Drug** from the drop down box

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

### **Note**

Enter **Amount** of drug

### **STEP 6**

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

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

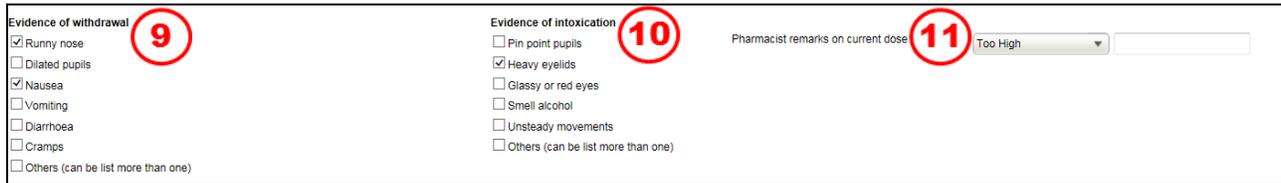
### **STEP 7**

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

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

## STEP 8

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



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

Figure 3.2.3.6-4 Specific Details – Methadone

## STEP 9

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

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

## STEP 10

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

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

### **Note**

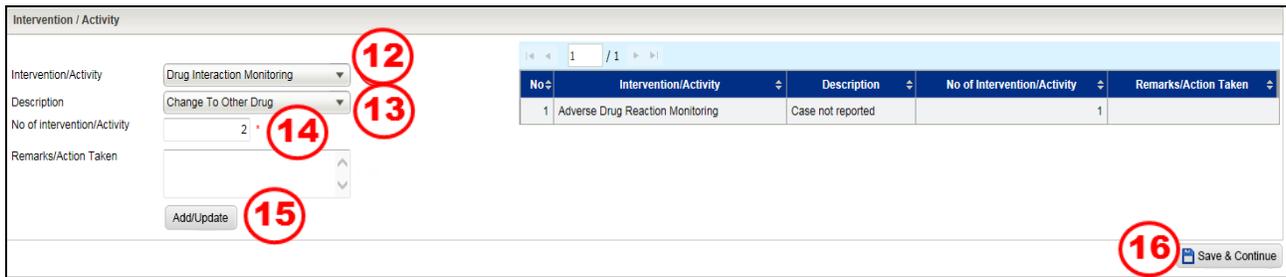
Blank fields will be enabled if user selects 'Other' from the drop down box of Evidence of withdrawal and Evidence of intoxication.

## STEP 11

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

- Sufficient
- Too High
- Too Low

## Intervention / Activity



The screenshot shows a web form titled "Intervention / Activity". On the left, there are four input fields: "Intervention/Activity" (dropdown menu), "Description" (dropdown menu), "No of Intervention/Activity" (text input), and "Remarks/Action Taken" (text area). Below these is an "Add/Update" button. On the right, there is a table with one row of data. At the bottom right, there is a "Save & Continue" button. Red circles with numbers 12 through 16 point to specific elements: 12 points to the "Intervention/Activity" dropdown, 13 to the "Description" dropdown, 14 to the "No of Intervention/Activity" input, 15 to the "Add/Update" button, and 16 to the "Save & Continue" button.

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

Figure 3.2.3.6-5 Specific Details – Methadone

### STEP 12

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

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

### STEP 13

Select **Description** from the drop down box

### STEP 14

Enter **No of Intervention/Activity**

### Note

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

### STEP 15

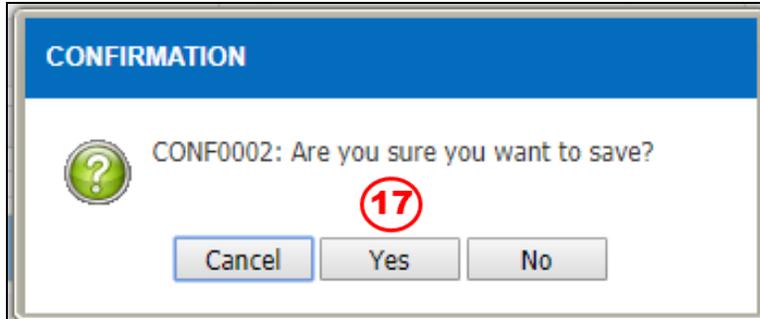
Click on the  button to add drug information on the list

### STEP 16

Click on the  button to save and continue with reporting record

**STEP 17**

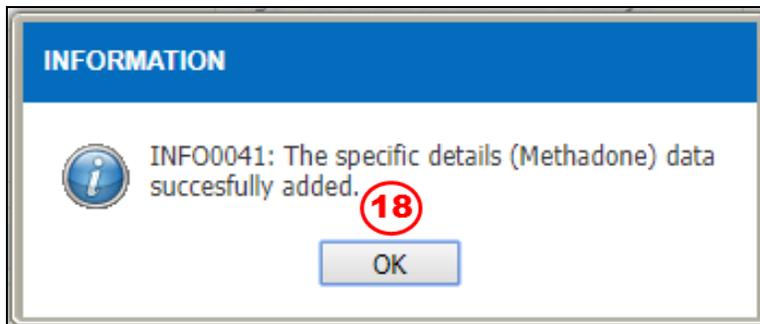
Click on the  button to confirm save order



**Figure 3.2.3.6-6 Confirmation Alert Message**

**STEP 18**

Click on the  button to add record



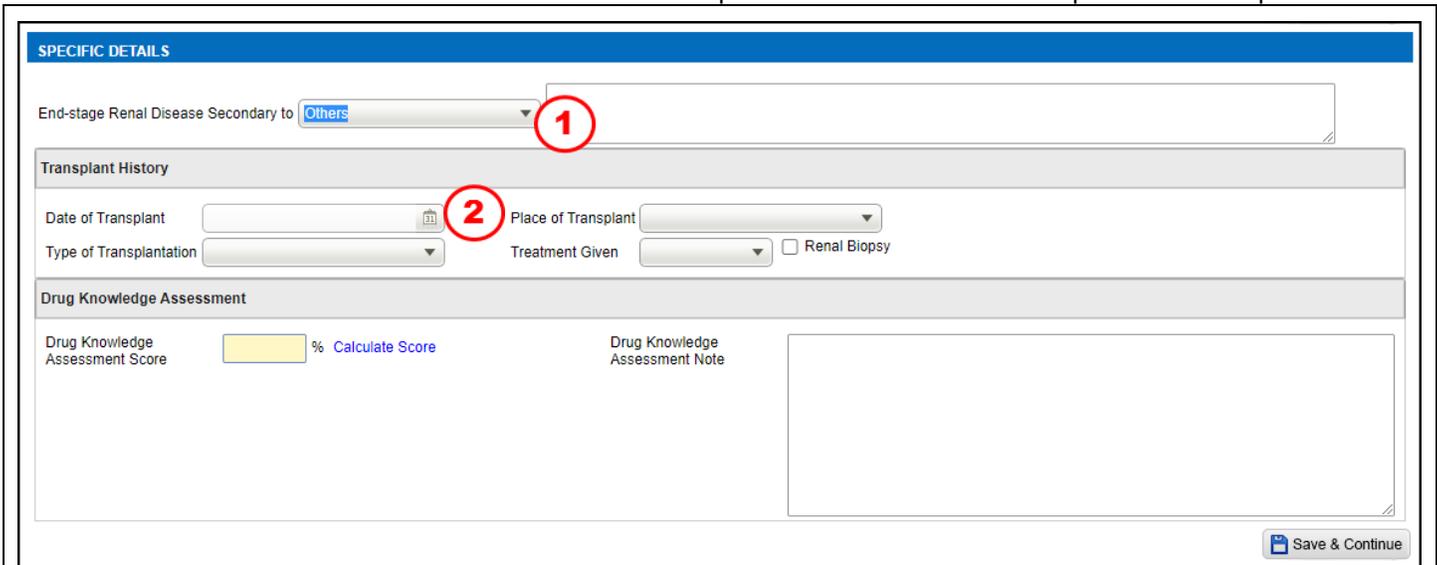
**Figure 3.2.3.6-7 Information Alert Message**

**Note**

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

### 3.2.3.7 Renal Transplant

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



The screenshot shows a web form titled "SPECIFIC DETAILS". The first section, "End-stage Renal Disease Secondary to", has a dropdown menu with "Others" selected, marked with a red circle and the number "1". Below this is a "Transplant History" section with fields for "Date of Transplant" (with a calendar icon marked with a red circle and "2"), "Place of Transplant", "Type of Transplantation", "Treatment Given", and a checkbox for "Renal Biopsy". The "Drug Knowledge Assessment" section includes a score field, a "Calculate Score" button, and a text area for "Drug Knowledge Assessment Note". A "Save & Continue" button is at the bottom right.

Figure 3.2.3.7-1 Specific Details - Renal Transplant

#### **Note**

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

#### **STEP 1**

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

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

#### **Note**

Once selected **Others**, system will display free text field to fill in details

#### **Transplant History**

#### **STEP 2**

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

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

- Cadaveric
- Living Non Related
- Living Related

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

- Local
- Overseas

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

- Simulect
- OKT3
- Anti-Thymocyte

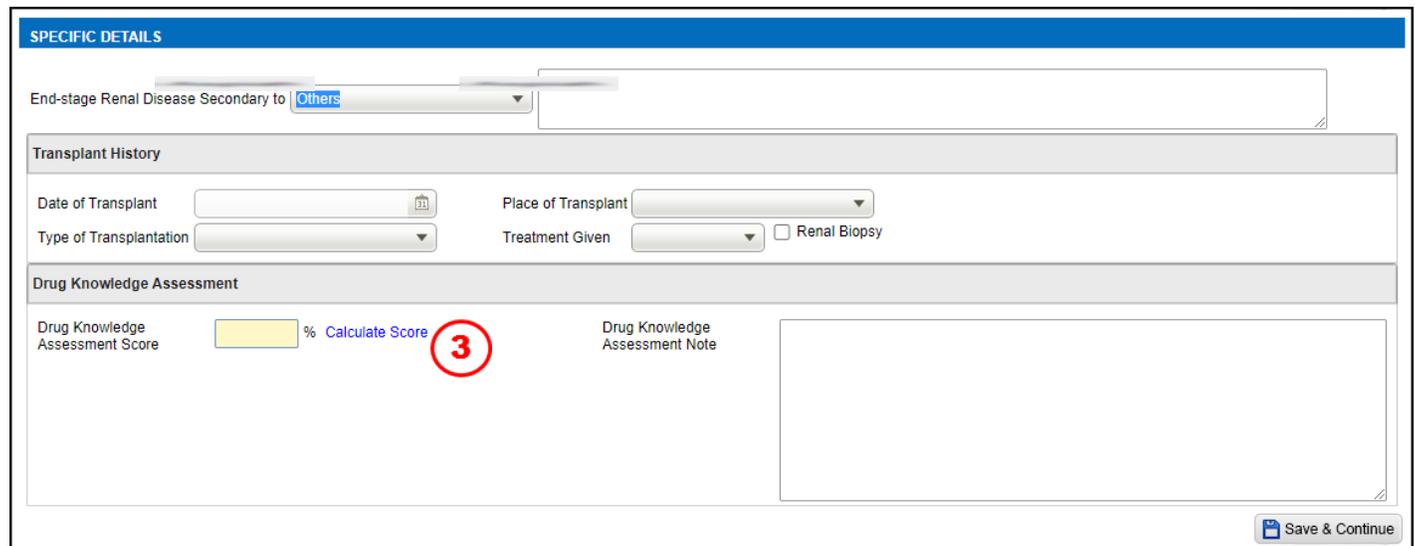
**Note**

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

**Drug Knowledge Assessment**

**STEP 3**

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



The screenshot shows a web interface titled 'SPECIFIC DETAILS'. It contains several sections: 'End-stage Renal Disease Secondary to' with a dropdown menu set to 'Others'; 'Transplant History' with fields for 'Date of Transplant', 'Place of Transplant', 'Type of Transplantation', 'Treatment Given', and a 'Renal Biopsy' checkbox; and 'Drug Knowledge Assessment' with a 'Drug Knowledge Assessment Score' field, a 'Calculate Score' button, and a 'Drug Knowledge Assessment Note' text area. A red circle highlights the number '3' next to the 'Calculate Score' button. A 'Save & Continue' button is located at the bottom right.

**Figure 3.2.3.7-2 Specific Details - Renal Transplant**

**STEP 4**

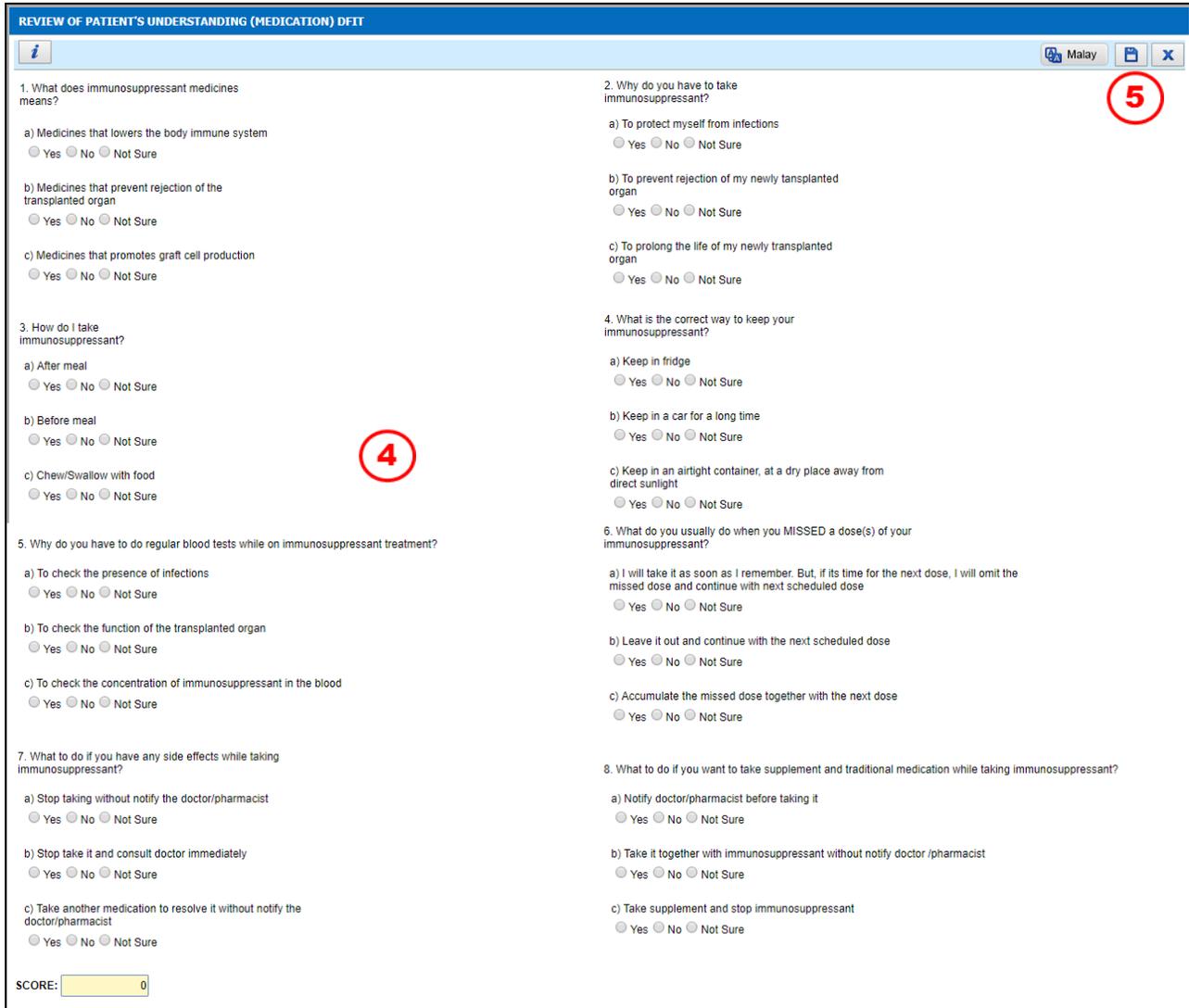
Answer all questionnaire in the **Review of Patient's Understanding** window by selecting the radio button to answer every questions

**Note**

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

### STEP 5

Click on the  button to save record



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

1. What does immunosuppressant medicines means?

- a) Medicines that lowers the body immune system  
 Yes  No  Not Sure
- b) Medicines that prevent rejection of the transplanted organ  
 Yes  No  Not Sure
- c) Medicines that promotes graft cell production  
 Yes  No  Not Sure

2. Why do you have to take immunosuppressant?

- a) To protect myself from infections  
 Yes  No  Not Sure
- b) To prevent rejection of my newly transplanted organ  
 Yes  No  Not Sure
- c) To prolong the life of my newly transplanted organ  
 Yes  No  Not Sure

3. How do I take immunosuppressant?

- a) After meal  
 Yes  No  Not Sure
- b) Before meal  
 Yes  No  Not Sure
- c) Chew/Swallow with food  
 Yes  No  Not Sure

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

- a) Keep in fridge  
 Yes  No  Not Sure
- b) Keep in a car for a long time  
 Yes  No  Not Sure
- c) Keep in an airtight container, at a dry place away from direct sunlight  
 Yes  No  Not Sure

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

- a) To check the presence of infections  
 Yes  No  Not Sure
- b) To check the function of the transplanted organ  
 Yes  No  Not Sure
- c) To check the concentration of immunosuppressant in the blood  
 Yes  No  Not Sure

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

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

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

- a) Stop taking without notify the doctor/pharmacist  
 Yes  No  Not Sure
- b) Stop take it and consult doctor immediately  
 Yes  No  Not Sure
- c) Take another medication to resolve it without notify the doctor/pharmacist  
 Yes  No  Not Sure

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

- a) Notify doctor/pharmacist before taking it  
 Yes  No  Not Sure
- b) Take it together with immunosuppressant without notify doctor /pharmacist  
 Yes  No  Not Sure
- c) Take supplement and stop immunosuppressant  
 Yes  No  Not Sure

SCORE:

Figure 3.2.3.7-3 Drug Knowledge Assessment

### STEP 6

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

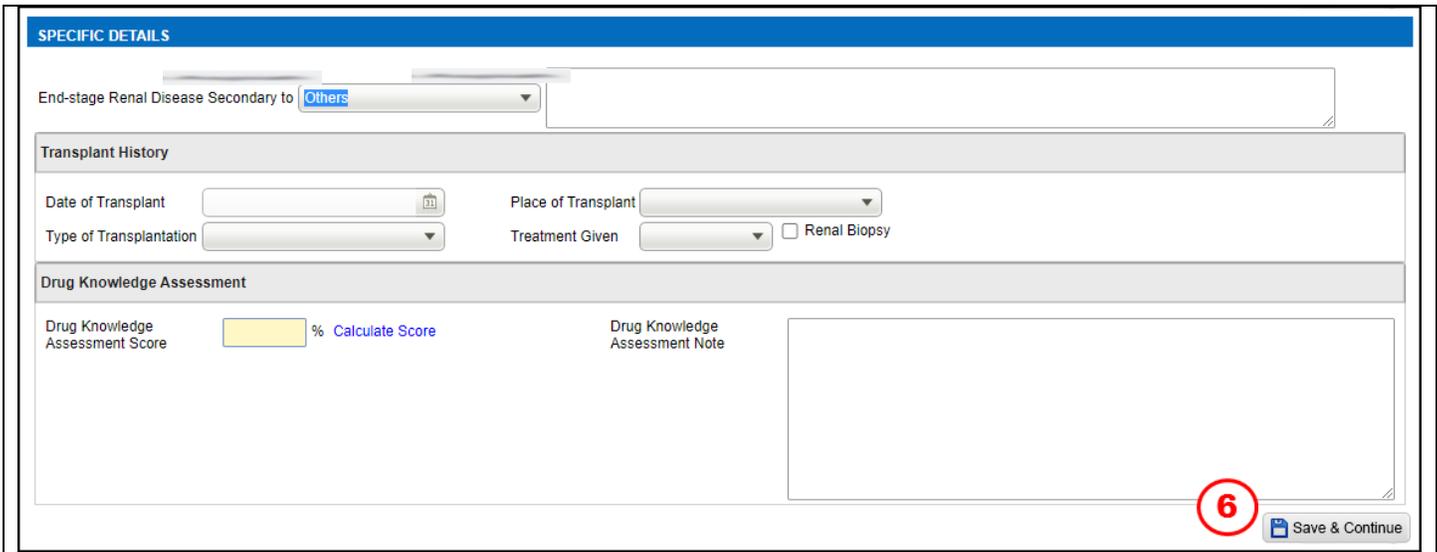


Figure 3.2.3.7-4 Specific Details - Renal Transplant

**STEP 7**

Click on the  button to confirm save record

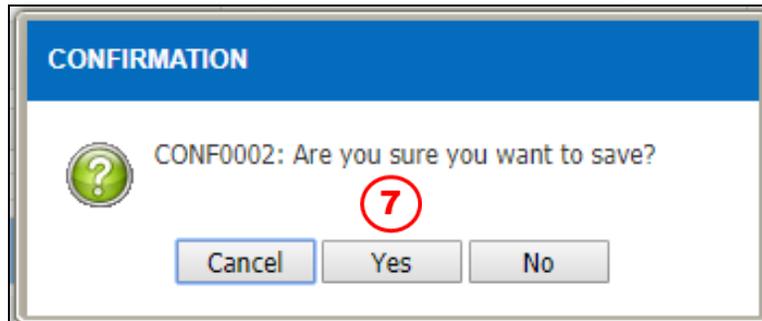


Figure 3.2.3.7-5 Confirmation Alert Message

**STEP 8**

Click on the  button to confirm record

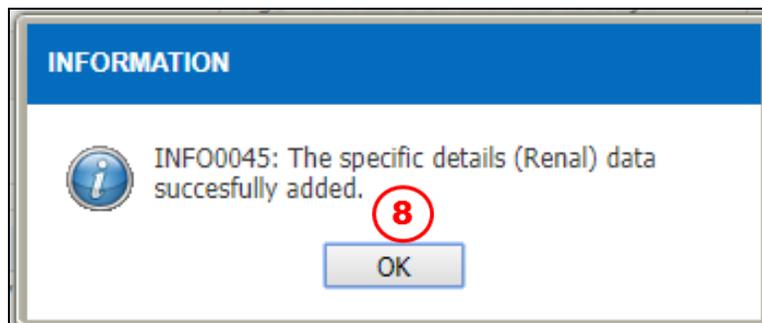


Figure 3.2.3.7-6 Information Alert Message

**Note**

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

### 3.2.3.8 Respiratory

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

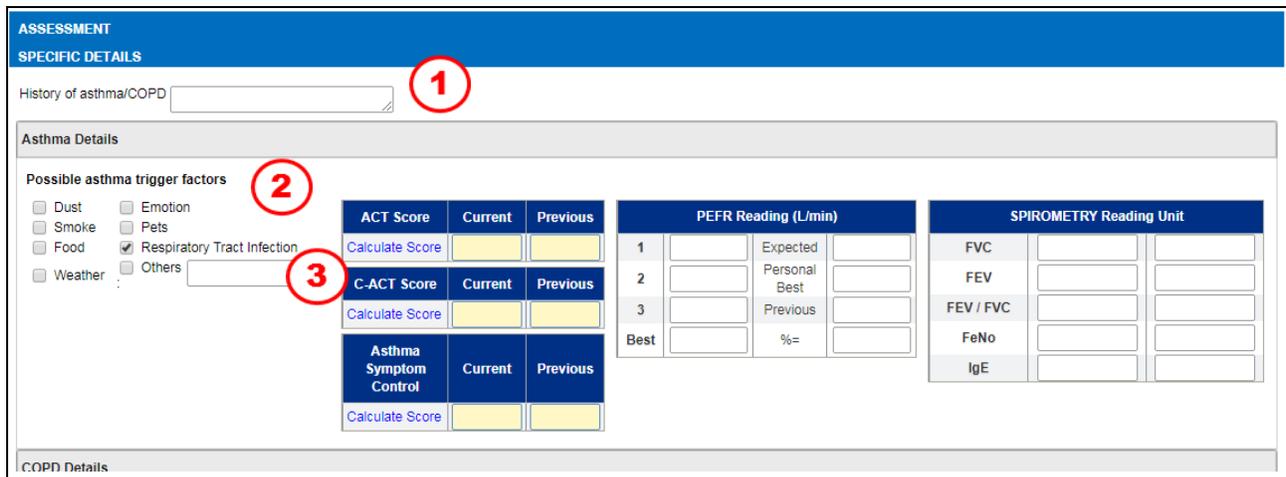


Figure 3.2.3.8-1 Specific Details – Respiratory Details

**Note**

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

**STEP 1**

Enter **History of asthma/COPD**

**Asthma Details**

**STEP 2**

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

- Dust
- Smoke
- Food
- Weather
- Emotion
- Pets
- Respiratory Tract Infection
- Others

**Note**

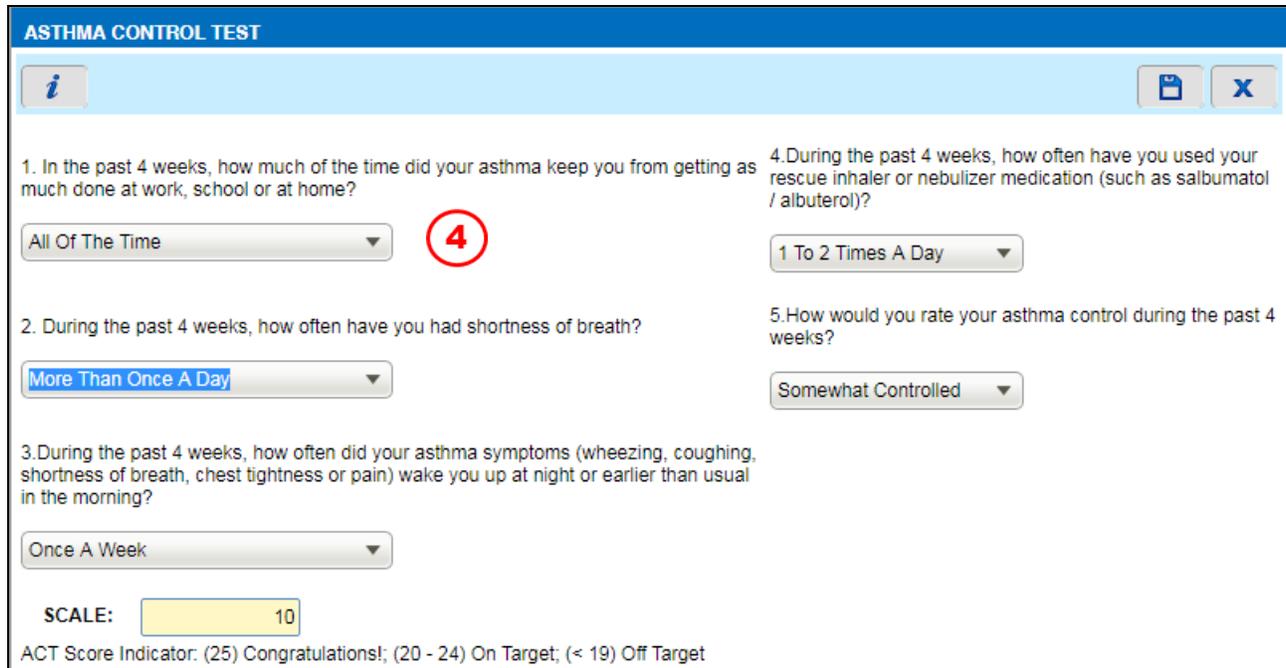
Blank field will be enabled only if user selects 'Others' from the check box.

**STEP 3**

Click on the [Calculate Score](#) hyperlink for **ACT Score**, **C-ACT Score** and the '**Asthma Symptom Control**', window will be displayed as shown in Figure 3.2.3.8-2 (a), Figure 3.2.3.8-2 (b), Figure 3.2.3.8-2 (c)

**STEP 4**

Select the drop down box to answer the questionnaire



**ASTHMA CONTROL TEST**

*i*  

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? **4**

All Of The Time

2. During the past 4 weeks, how often have you had shortness of breath?

More Than Once A Day

3. During the past 4 weeks, how often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning?

Once A Week

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

1 To 2 Times A Day

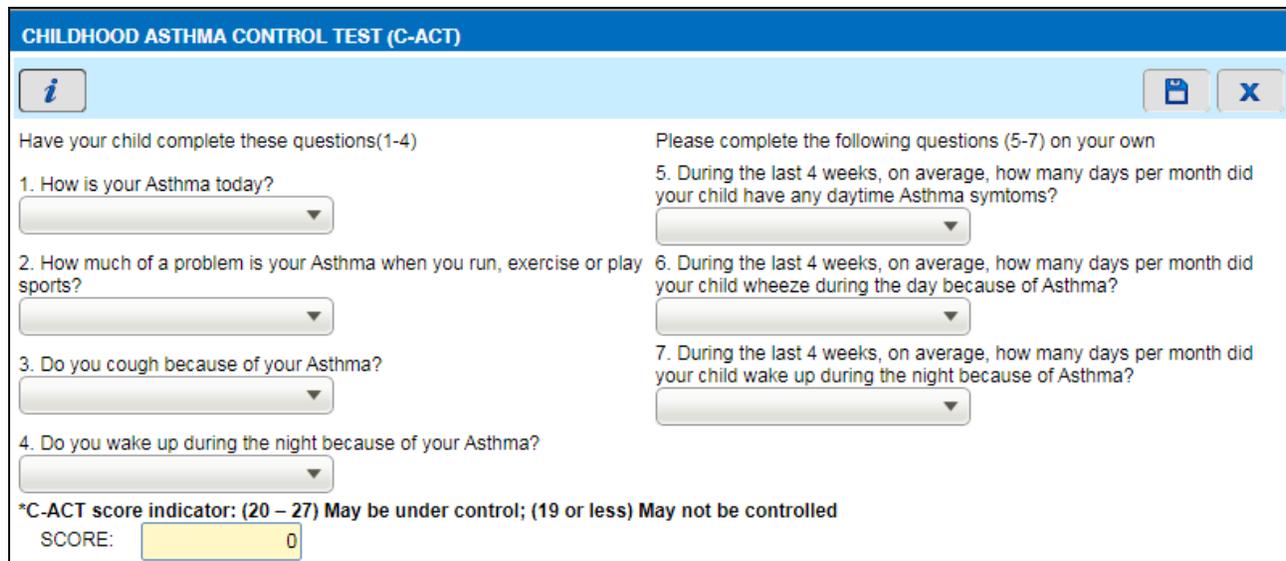
5. How would you rate your asthma control during the past 4 weeks?

Somewhat Controlled

SCALE: 10

ACT Score Indicator: (25) Congratulations!; (20 - 24) On Target; (< 19) Off Target

**Figure 3.2.3.8-2 (a) Asthma Control Test – Questionnaire**



**CHILDHOOD ASTHMA CONTROL TEST (C-ACT)**

*i*  

Have your child complete these questions(1-4)

1. How is your Asthma today?

2. How much of a problem is your Asthma when you run, exercise or play sports?

3. Do you cough because of your Asthma?

4. Do you wake up during the night because of your Asthma?

Please complete the following questions (5-7) on your own

5. During the last 4 weeks, on average, how many days per month did your child have any daytime Asthma symptoms?

6. During the last 4 weeks, on average, how many days per month did your child wheeze during the day because of Asthma?

7. During the last 4 weeks, on average, how many days per month did your child wake up during the night because of Asthma?

\*C-ACT score indicator: (20 – 27) May be under control; (19 or less) May not be controlled

SCORE: 0

**Figure 3.2.3.8-2 (b) Childhood Asthma Control Test – Questionnaire**

**ASTHMA SYMPTOM CONTROL**

i
[Save]
[X]

[Record the Level of Asthma Symptom Control Scale at each visit. In the past 4 weeks, has the patient had (please (✓) for Yes ; (X) for No)]

1. Daytime symptoms more than twice/week?	<input type="text" value="Yes"/>	#Level of Asthma Symptom Control scale indicator: (1) Controlled: None of these items; (2) Partly Controlled: 1-2 of these items; (3) Uncontrolled: 3-4 of these items
2. Any night waking due to Asthma?	<input type="text" value="No"/>	
3. Reliever needed* more than twice/week	<input type="text" value="Yes"/>	
4. Any activity limitation due to Asthma?	<input type="text" value="Yes"/>	

SCALE:

**Figure 3.2.3.8-2 (c) Asthma Symptom Control – Questionnaire**

**Note**

Score will be automatically calculated and automatically displayed.

**STEP 5**

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

COPD Details

	CAT Score	Current	Previous
CAT Score <span style="border: 1px solid #ccc; border-radius: 50%; padding: 2px 5px; font-weight: bold; color: red; margin-right: 5px;">5</span> <a href="#">Calculate Score</a>			

Inhaler Technique Checklist

7

Inhaler Technique	Before Counselling	After Counselling	
<div style="border: 1px solid #ccc; padding: 2px;"> <span style="font-size: small;">+ Add</span>                      Accuhaler Score                      Accuhaler Score                      Breezhaler Score                      Easyhealer Score                      Ellipta Score                      Handihaler Score                      MDI Score                      MDI and Aerochamber Score                      MDI and Optichamber Score                      MDI and Tube Score                      Respiimat Score                      Turbuhaler Score                 </div>		<a href="#">Calculate Score</a>	<a href="#">Calculate Score</a>

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**STEP 6**

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

**CAT SCORE - QUESTIONNAIRE**

**6**

1. I never cough  0  1  2  3  4  5 I cough all the time

2. I have no phlegm (mucus) in my chest at all  0  1  2  3  4  5 My chest is completely full of phlegm (mucus)

3. My chest does not feel tight at all  0  1  2  3  4  5 My chest feels very tight

4. When I walk up a hill or one flight of stairs I am not breathless  0  1  2  3  4  5 When I walk up a hill or one flight of stairs I am very breathless

5. I am not limited doing any activities at home  0  1  2  3  4  5 I am very limited doing activities at home

6. I am confident leaving my home despite my lung condition  0  1  2  3  4  5 I am not at all confident leaving my home because of my lung condition

7. I sleep soundly  0  1  2  3  4  5 I don't sleep soundly because of my lung condition

8. I have lots of energy  0  1  2  3  4  5 I have no energy at all

SCALE:

CAT Score Indicator: (<10) = Low Impact; (10-20) = Medium Impact; (> 20) = High Impact; (>30) = Very High Impact

**Figure 3.2.3.8-4 CAT Score – Questionnaire**

**STEP 7**

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

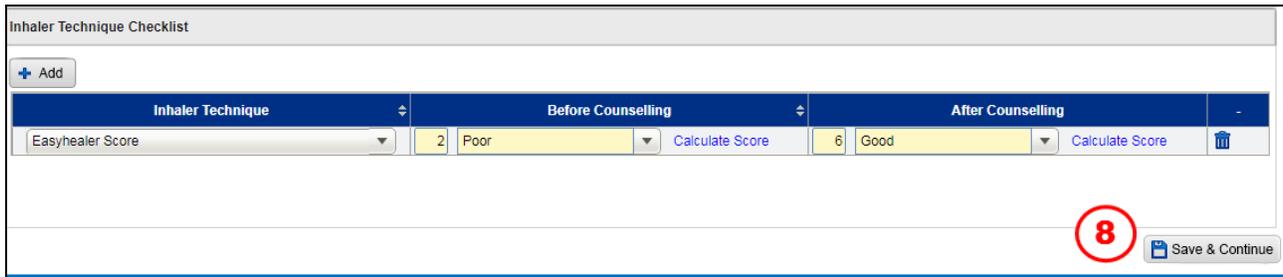
- a) MDI Score
- b) Easyhaler Score
- c) MDI and Aerochamber Score
- d) MDI and TUBE Score
- e) MDI and Optichamber Score
- f) Turbuhaler Score
- g) Accuhaler Score
- h) Handihaler Score
- i) Breezhaler Score
- j) Respimat Score
- k) Ellipta Score

**EASYHALER - EVALUATION**

Indicate YES (1) or NO (0) if step was performed in proper sequences;  
if critical step (\*\*) falls under NO (0), overall technique is poor.

No	Question	Answer
1.	Remove the dust cap and shake easyhaler in an up-down motion 3-5 times.	<input type="radio"/> Yes <input checked="" type="radio"/> No
2.	Hold the device in upright position. Press easyhaler <b>ONCE</b> until a 'CLICK' sound is heard	<input type="radio"/> Yes <input checked="" type="radio"/> No
3.	Breath out completely, away from the mouthpiece.	<input checked="" type="radio"/> Yes <input type="radio"/> No
4.	Place mouthpiece between lips. Make sure lips cover the mouthpiece tightly. Inhale forcefully and deeply through the mouth**.	<input checked="" type="radio"/> Yes <input type="radio"/> No
5.	Remove the inhaler from the mouth and hold breath for 5-10 seconds, and then breath out slowly.	<input type="radio"/> Yes <input checked="" type="radio"/> No
6.	Repeat step 1-5 if more than one dose is required.	<input type="radio"/> Yes <input checked="" type="radio"/> No
Score Rating: (6) Good, (4 - 5) Satisfactory, (0 - 3) Poor		SCALE: <input type="text" value="2"/>

**Figure 3.2.3.8-5(a) Inhaler Technique Understanding-Before**



Inhaler Technique	Before Counselling	After Counselling	
Easyhealer Score	2 Poor Calculate Score	6 Good Calculate Score	🗑️

**8** Save & Continue

Figure 3.2.3.8-5(b) Inhaler Technique Understanding-After

**STEP 8**

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

**STEP 9**

Click on the  button to confirm save order

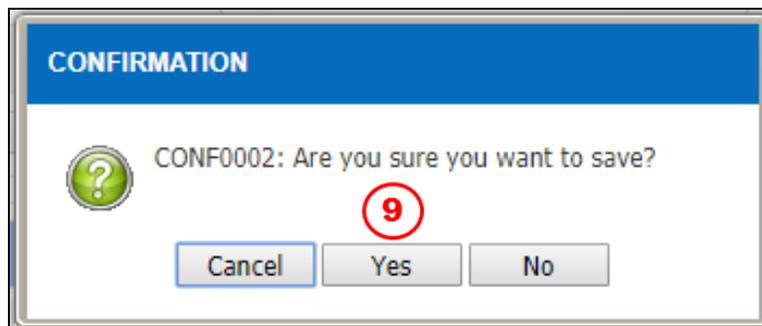


Figure 3.2.3.8-6 Confirmation Alert Message

**STEP 10**

Click on the  button to confirm record

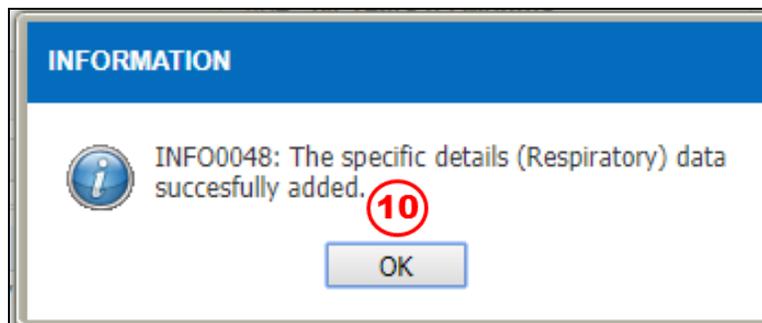


Figure 3.2.3.8-7 Information Alert Message

**Note**

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

### 3.2.3.9 Retro Viral Disease

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

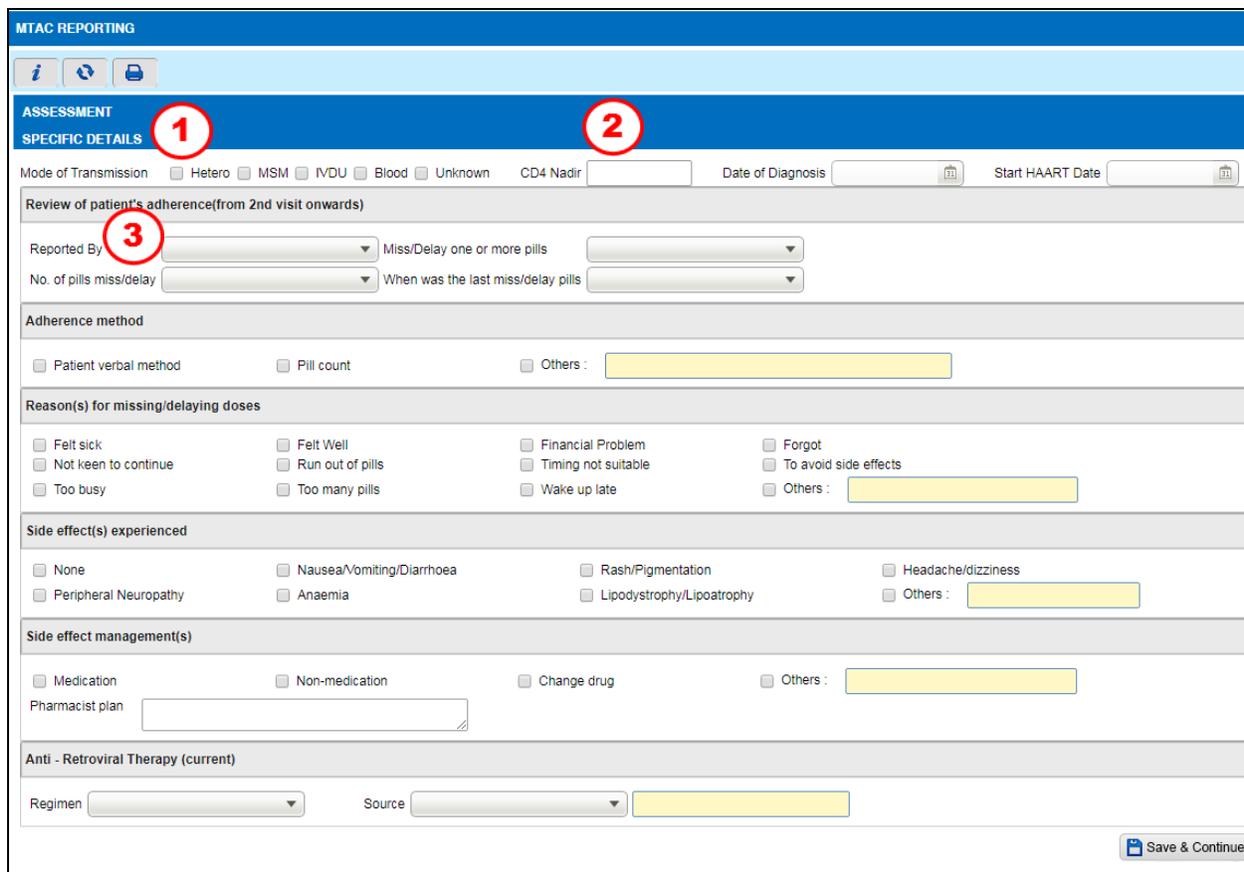


Figure 3.2-3.9-1 Specific Details - Retro Viral Disease

#### Note

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

#### STEP 1

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

- Hetero
- MSM
- IVDU
- Blood
- Unknown

#### STEP 2

Enter **CD4 Nadir**

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

### STEP 3

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

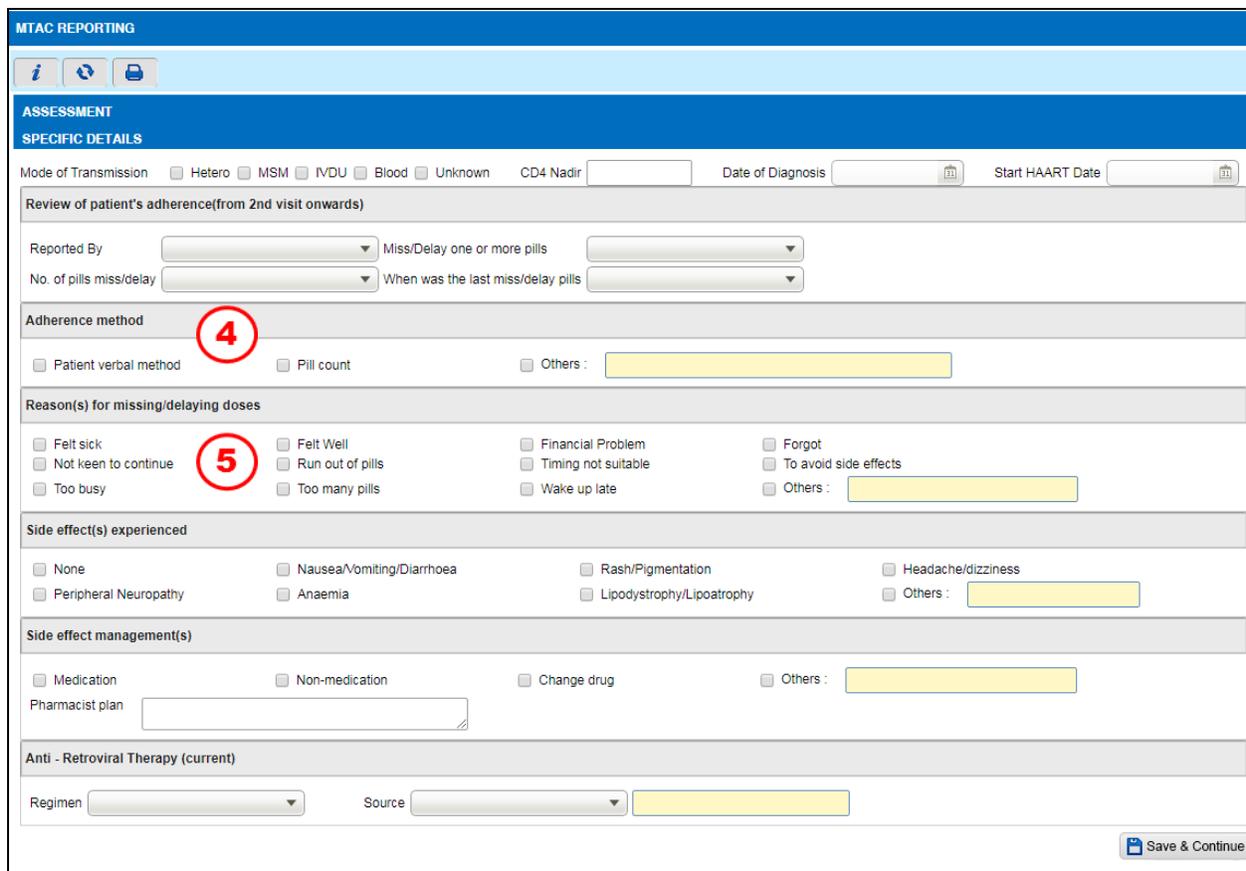
- Caregiver
- Patient

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

- Yes
- No

### Note

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



**MTAC REPORTING**

**ASSESSMENT**

**SPECIFIC DETAILS**

Mode of Transmission  Hetero  MSM  IVDU  Blood  Unknown CD4 Nadir  Date of Diagnosis  Start HAART Date

Review of patient's adherence(from 2nd visit onwards)

Reported By  Miss/Delay one or more pills

No. of pills miss/delay  When was the last miss/delay pills

**Adherence method** 4

Patient verbal method  Pill count  Others :

**Reason(s) for missing/delaying doses**

Felt sick  Felt Well  Financial Problem  Forgot

Not keen to continue 5  Run out of pills  Timing not suitable  To avoid side effects

Too busy  Too many pills  Wake up late  Others :

**Side effect(s) experienced**

None  Nausea/Vomiting/Diarrhoea  Rash/Pigmentation  Headache/dizziness

Peripheral Neuropathy  Anaemia  Lipodystrophy/Lipoatrophy  Others :

**Side effect management(s)**

Medication  Non-medication  Change drug  Others :

Pharmacist plan

**Anti - Retroviral Therapy (current)**

Regimen  Source

Figure 3.2.3.9-2 Specific Details - Retro Viral Disease

### STEP 4

Select **Adherence Method** from the check box

- Patient verbal method

- Pill count
- Others

**Note**

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

**STEP 5**

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

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

**Note**

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

**SPECIFIC DETAILS**

Mode of Transmission  Hetero  MSM  IVDU  Blood  Unknown CD4 Nadir  Date of Diagnosis  Start HAART Date

Review of patient's adherence(from 2nd visit onwards)

Reported By  Miss/Delay one or more pills

No. of pills miss/delay  When was the last miss/delay pills

Adherence method

Patient verbal method  Pill count  Others :

Reason(s) for missing/delaying doses

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

Side effect(s) experienced **6**

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

Side effect management(s) **7**

Medication  Non-medication  Change drug  Others :

Pharmacist plan

Anti - Retroviral Therapy (current) **8**

Regimen  Source   **9**

Figure 3.2.3.9-3 Specific Details - Retro Viral Disease

**STEP 6**

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

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

**Note**

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

**STEP 7**

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

- Medication
- Non-medication
- Change drug

- Others

**Note**

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

Enter **Pharmacist plan** if necessary

**Anti-Retroviral Therapy (current)**

**STEP 8**

Select **Regimen** from the drop down box

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

Select **Source** from the drop down box

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

**Note**

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

**STEP 9**

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

**STEP 10**

Click on the  button to confirm save record

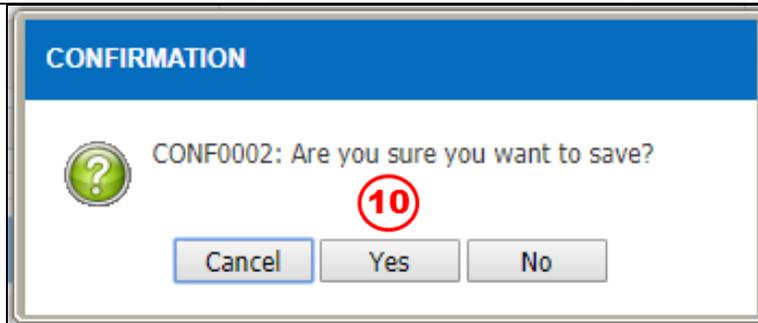


Figure 3.2.3.9-4 Confirmation Alert Message

**STEP 11**

Click on the  button to confirm record

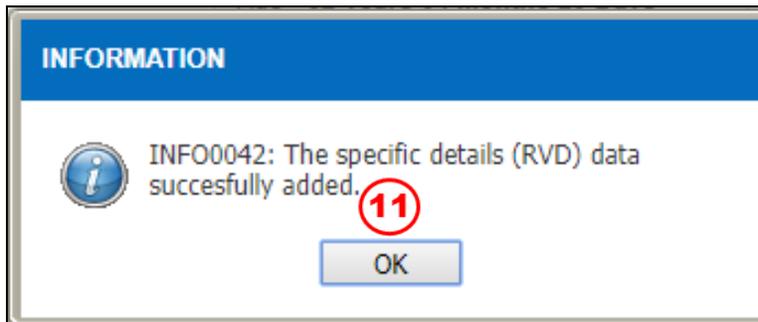


Figure 3.2.3.9-5 Information Alert Message

**Note**

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

### 3.2.3.10 Warfarin

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

Figure 3.2.3.10-1- MTAC Order-Warfarin

Figure 3.2.3.10-2 Specific Details - Warfarin

**Note**

- Repeat **STEP 1 to 16** as in 3.2.1 Create New MTAC Reporting with No Specific Details before performing MTAC Reporting - Specific Details for Warfarin.
- Additional **Time in Therapeutic Range(TTR)** function added as per Figure 3.2.3.10-1 and will display in specific details as per Figure 3.2.3.10-2

**STEP 1**

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

- **Signs of bleeding**
- **Correct Dose Taken**
- **Signs of thrombosis**

- **Missed doses in past 1 week**
- **Medication changes**
- **Changes in Medical Status/Illness**
- **Other complaint/patient plans**
- **Change in Physical Activity**

**Note**

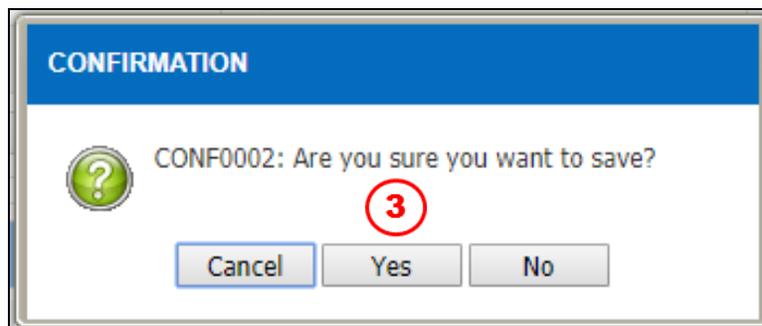
- Enter remark (if available) and dosage for **Correct Dose Taken** at the blank field provided
- **Total weekly dose, Target INR Range, Warfarin Indication, Bleeding Risk Factor, Date Warfarin Started and Anticipated Duration** will be automatically displayed based on what user key in in MTAC order details as shown in Figure 3.2.3.10-2.
- User is allowed to fill in the recommended warfarin dose per day in the column below as shown in Figure 3.2.3.10-2.

**STEP 2**

Click on the  button to save and continue with reporting section

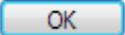
**STEP 3**

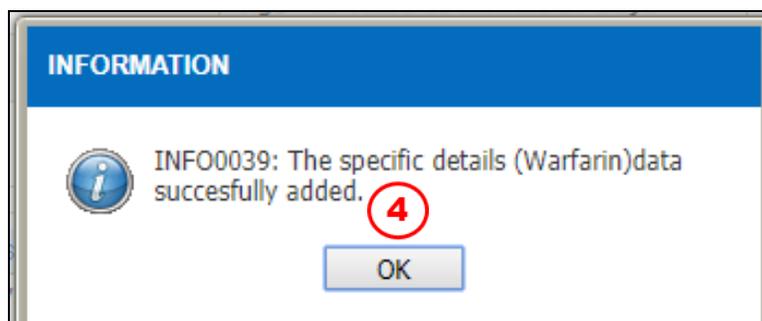
Click on the  button to confirm save record



**Figure 3.2.3.10-3 Confirmation Alert Message**

**STEP 4**

Click on the  button to confirm record



**Figure 3.2.3.10-4 Information Alert Message**

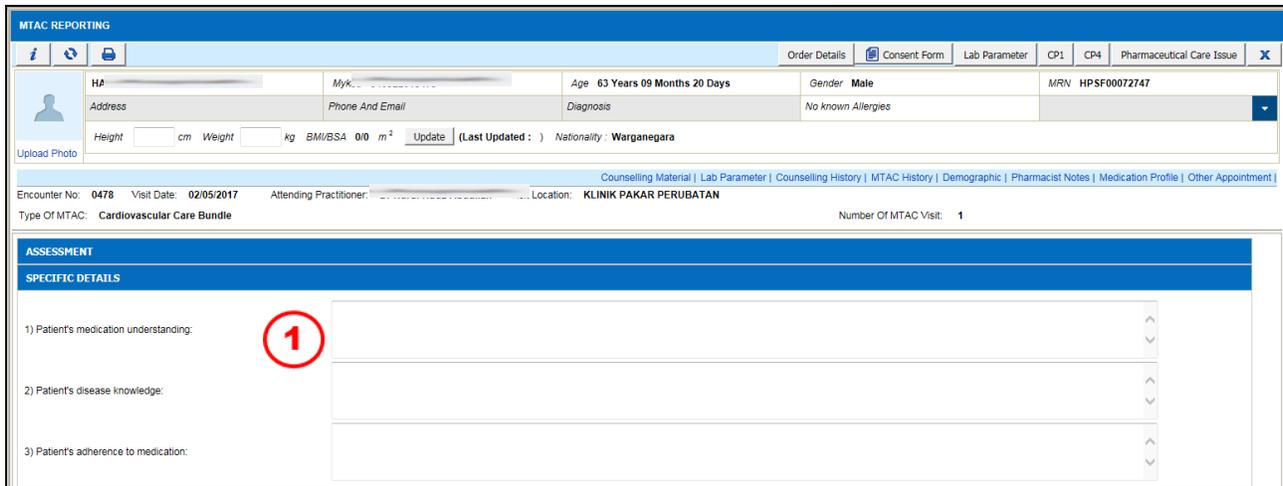


**Note**

- For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.
- If patient has previous history, Target INR will appear in MTAC History

### 3.2.3.11 Cardiovascular Care Bundle

This function allow user to record Specific Details for Cardiovascular Care Bundle for MTAC patients.



The screenshot displays the 'MTAC REPORTING' interface. At the top, there are navigation tabs: 'Order Details', 'Consent Form', 'Lab Parameter', 'CP1', 'CP4', and 'Pharmaceutical Care Issue'. Below this is a patient information form with fields for HA, MyK, Age (63 Years 09 Months 20 Days), Gender (Male), MRN (HPSF00072747), Address, Phone And Email, Diagnosis, No known Allergies, Height, Weight, BMI/BSA (0/0 m²), and Nationality (Warganegara). Below the patient info, there are fields for Encounter No (0478), Visit Date (02/05/2017), Attending Practitioner, and Location (KLINIK PAKAR PERUBATAN). The 'Type Of MTAC' is 'Cardiovascular Care Bundle' and 'Number Of MTAC Visit' is '1'. The main section is titled 'ASSESSMENT' and contains a 'SPECIFIC DETAILS' section with three text input areas: '1) Patient's medication understanding', '2) Patient's disease knowledge', and '3) Patient's adherence to medication'. A red circle with the number '1' is placed over the first input area.

Figure 3.2.3.11-1 Specific Details – Cardiovascular Care Bundle

**Note**

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

**STEP 1**

For **Subjective Information**, user need to fill up the patient specific detail based on:

- **Patient medication understanding**
- **Patient disease knowledge**
- **Patient adherence to medication**

**Note**

- For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.
- User can save the specific detail after doing reporting part.

### 3.2.3.11 Haemophilia

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

Type Of MTAC: **Haemophilia** Number Of MTAC Visit: **1**

---

**Bleeding patterns or frequency in the past**

1) Frequency of bleedings :  times in a :  week  month

2) Type of bleed :  Spontaneous  Traumatic

3) Site of bleed (state all location)& frequency :

4) Time from bleed to infusion of factors :   mins  hrs

5) Time to alleviate pain/stop bleed :   mins  hrs

6) No. of infusions required to stop each bleeding incident :

7) No. of days off work/school :  days

8) Prophylaxis dose (if applicable) :

**week(s) :**

**1**

---

**History of serious bleed :**  No  Yes

Intracranial bleed; Date :

Iliopsoas bleed; Date :

Others :

Date :

---

**Target joints :**

**Deformities :**

---

**Education topics done :**  Visit 1 (C:1-7)  Visit 2 (C:8-12)  Visit 3 (C:13-16)  Visit 4 (C:17-18)

---

**Factor Concentrates Infusion Plan**

**On Demand Therapy**

For bleeding in joint and/or muscles :-

% Target : Infuse  vials of  units factor concentrates when necessary.

Repeat after  hours if necessary.

For bleeding in head, throat, GI and/or Iliopsoas :-

% Target : Infuse  vials of  units factor concentrates immediately and go to nearest haemophilia center.

**Prophylaxis Therapy**

% Target : Infuse  vials of  units factor concentrates  and when necessary.

and when necessary.

**3**

**Figure 3.2.3.11-1 Specific Details – Haemophilia**

**Note**

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

**STEP 1**

For Specific details, user need to fill up the patient specific detail based on:

- **Bleeding patterns or frequency in the past**
- **History of serious bleed**
- **Target joints**
- **Deformities**

- **Education topics done**

**STEP 2**

For Factor Concentrates Infusion Plan, user need to fill up the patient specific detail based on:

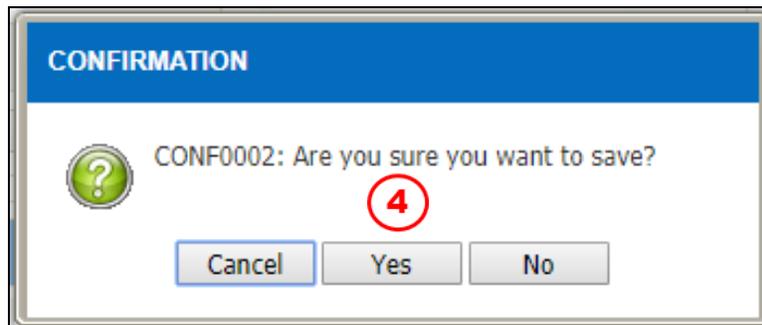
- **On Demand Therapy**
- **Prophylaxis Therapy**

**STEP 3**

Click on the  button to save and continue with reporting section

**STEP 4**

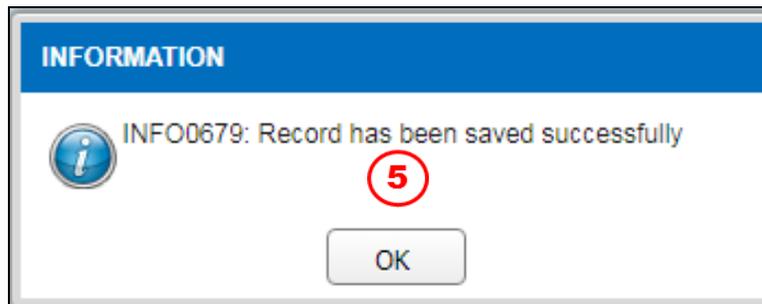
Click on the  button to confirm save record



**Figure 3.2.3.11-2 Confirmation Alert Message**

**STEP 5**

Click on the  button to confirm record



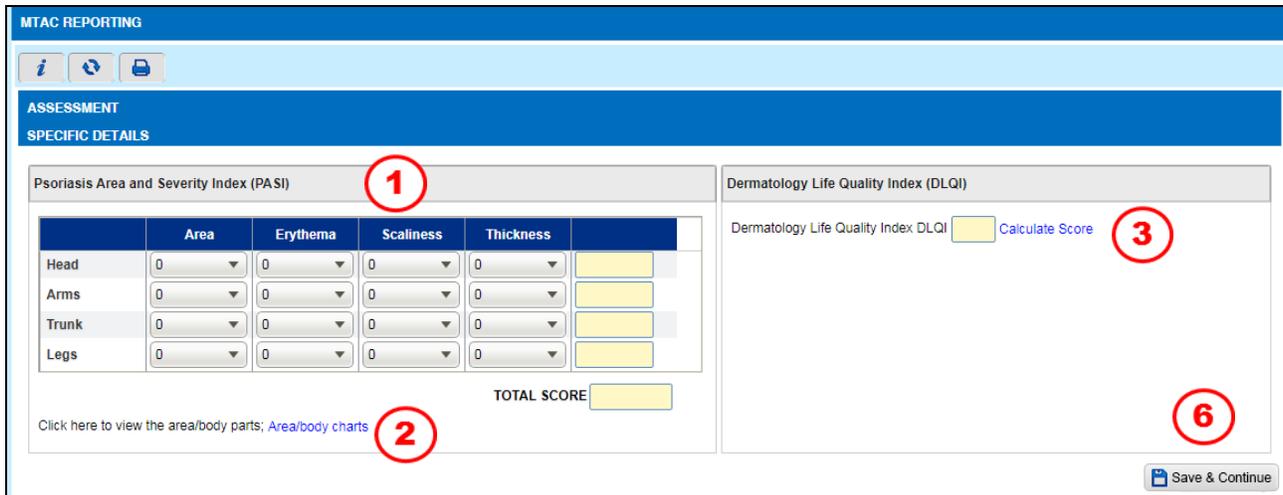
**Figure 3.2.3.11-3 Information Alert Message**

**Note**

- For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.
- If patient has previous history, Haemophilia record will appear in MTAC History

### 3.2.3.12 Psoriasis

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



**MTAC REPORTING**

**ASSESSMENT**  
**SPECIFIC DETAILS**

**Psoriasis Area and Severity Index (PASI)**

	Area	Erythema	Scaliness	Thickness	
Head	0	0	0	0	
Arms	0	0	0	0	
Trunk	0	0	0	0	
Legs	0	0	0	0	

TOTAL SCORE

Click here to view the area/body parts; [Area/body charts](#)

**Dermatology Life Quality Index (DLQI)**

Dermatology Life Quality Index DLQI

Figure 3.2.3.12-1 Specific Details – Psoriasis

**Note**

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

**1) Psoriasis Area Severity Index (PASI): Assessment**

**STEP 1**

Select the score from drop down value for Area, Erythema, Scaliness and Thickness for:

- **Head**
- **Arms**
- **Trunk**
- **Legs**

Details calculation for the Psoriasis Area and Severity Index (PSAI) is as below:

No.	Name	Description
1.	Head (Area)	User can select from Drop down menu value = (0 – 6)
2.	Head (Erythema)	User can select from Drop down menu value = (0 – 6)
3.	Head (Scaliness)	User can select from Drop down menu value = (0 – 6)
4.	Head (Thickness)	User can select from Drop down menu value = (0 – 6)
5.	Head (Total)	Auto calculated based on below: <b>0.1 x Head Area x (Head Erythema + Head Scaliness + Head Thickness)</b>
6.	Arms (Area)	User can select from Drop down menu value = (0 – 4)
7.	Arms (Erythema)	User can select from Drop down menu value = (0 – 4)
8.	Arms (Scaliness)	User can select from Drop down menu value = (0 – 4)
9.	Arms (Thickness)	User can select from Drop down menu value = (0 – 4)
10.	Arms (Total)	Auto calculated based on below: <b>0.2 x Arms Area x (Arms Erythema + Arms Scaliness + Arms Thickness)</b>
11.	Trunk (Area)	User can select from Drop down menu value = (0 – 4)
12.	Trunk (Erythema)	User can select from Drop down menu value = (0 – 4)
13.	Trunk (Scaliness)	User can select from Drop down menu value = (0 – 4)
14.	Trunk (Thickness)	User can select from Drop down menu value = (0 – 4)
15.	Trunk (Total)	Auto calculated based on below: <b>0.3 x Trunk Area x (Trunk Erythema + Trunk Scaliness + Trunk Thickness)</b>
16.	Legs (Area)	User can select from Drop down menu value = (0 – 4)
17.	Legs (Erythema)	User can select from Drop down menu value = (0 – 4)
18.	Legs (Scaliness)	User can select from Drop down menu value = (0 – 4)
19.	Legs (Thickness)	User can select from Drop down menu value = (0 – 4)
20.	Legs (Total)	Auto calculated based on below: <b>0.4 x Legs Area x (Legs Erythema + Legs Scaliness + Legs Trunk Thickness)</b>
21.	Total Score	Auto calculated based on below: <b>Head Total + Arms Total + Trunk Total + Legs Total</b>

**Table 3.2.3.12-1 Specific Details – Psoriasis**

**STEP 2**

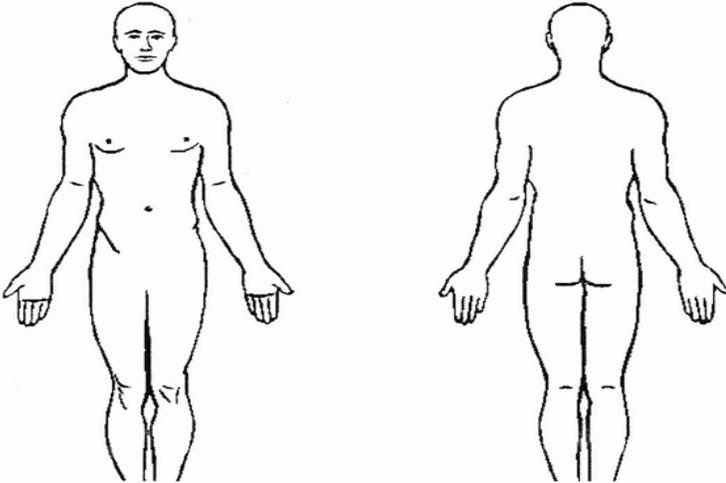
Click on the [Area/body charts](#) hyperlink to view the area/body parts :

**MTAC PSORIASIS**

Nama : EXXXX XXXXXXXX XXXXXXXXXX    MRN : HKL000441    IC :

Tarikh : 09/08/2019    MTAC Visit : 1

Sila rujuk kepada warna atau nama ubat untuk memastikan ubat disapu pada bahagian badan yang betul



**PSORIASIS AREA AND SEVERITY INDEX (PASI) : ASSESSMENT**

E.g. 0.1 x Head Area x ( Head Erythema + Head Scaliness + Head Thickness)

Head	: 0.1 x	1	x (	2	+	0	+	2	) =	0.4
Arms	: 0.2 x	3	x (	4	+	4	+	3	) =	6.6
Trunks	: 0.3 x	1	x (	3	+	2	+	1	) =	1.8
Legs	: 0.4 x	0	x (	2	+	2	+	1	) =	0
<b>TOTAL SCORE</b>										<b>8.8</b>

**Figure 3.2.3.12-2 Specific Details – Area Body Chart**

**2. Dermatology Life Quality Index (DLQI)**

**Dermatology Life Quality Index (DLQI)**

Dermatology Life Quality Index DLQI  [Calculate Score](#)

**Figure 3.2.3.12-3 Specific Details –DLQI**

**STEP 3**

Click on the 'Calculate Score' hyperlink shall display assessment screen as below:

**DERMATOLOGY LIFE QUALITY INDEX (DLQI)**

Please tick one box for each question

Over the last week	Very much	A lot	A little	Not at all	Not relevant
1 How itchy, sore, painful or stinging has your skin been ?	<input type="checkbox"/>				
2 How embarrassed or self conscious have you been because of your skin ?	<input type="checkbox"/>				
3 How much has your skin interfered with you going shopping or looking after your home or garden ?	<input type="checkbox"/>				
4 How much has your skin influenced the clothes you wear ?	<input type="checkbox"/>				
5 How much has your skin affected any social or leisure activities ?	<input type="checkbox"/>				
6 How much has your skin made it difficult for you to do any sport ?	<input type="checkbox"/>				
7 Has your skin prevented you from working or studying ? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Relevant If No, over the last week how much has your skin been a problem at work or studying ?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8 How much your skin created problems with your partner or any of your close friends or relatives ?	<input type="checkbox"/>				
9 How much has your skin caused by any sexual difficulties ?	<input type="checkbox"/>				
10 How much of a problem has the treatment for your skin been, for example by making your home messy, or by taking up time ?	<input type="checkbox"/>				

DLQI =

Figure 3.2.3.12-4 Specific Details –DLQI Questionnaire

**STEP 4**

Tick on the answers check box for each question

Details of the score description as below:

No.	Name	Description
1.	How itchy, sore, painful or stinging has your skin been? <i>Setakat manakah kulit anda berasa gatal atau sakit?</i>	User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1 d) Not at all: 0
2.	How embarrassed or self conscious have you been because of your skin? <i>Setakat manakah anda berasa malu atau segan, disebabkan oleh kulit anda?</i>	User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1 d) Not at all: 0
3.	How much has your skin interfered with you going shopping or looking after your home or garden? <i>Setakat manakah kulit anda mengganggu anda daripada pergi membeli-belah atau menjaga rumah atau berkebun?</i>	User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1 d) Not at all: 0 e) Not relevant: 0
4.	How much has your skin influenced the clothes you wear? <i>Setakat manakah kulit anda mempengaruhi pakaian yang anda pakai?</i>	User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1 d) Not at all: 0 e) Not relevant: 0
5.	How much has your skin affected any social or leisure activities? <i>Setakat manakah kulit anda mengganggu aktiviti-aktiviti sosial atau masa lapang anda?</i>	User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1

			d) Not at all: 0 e) Not relevant: 0
6.	How much has your skin made it difficult for you to do any sport? <i>Setakat manakah keadaan kulit anda menyebabkan anda tidak selesa semasa bersukan?</i>		User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1 d) Not at all: 0 e) Not relevant: 0
7.	Has your skin prevented you from working or studying? <i>Adakah kulit menyebabkan anda tidak dapat kerja atau belajar?</i>  Yes/ya <input type="checkbox"/> No/Tidak <input type="checkbox"/> Not relevant/tidak <input type="checkbox"/> berkenaan <ul style="list-style-type: none"> <li>If "No", over the last week how much has your skin been a problem at work or studying?</li> <li><b>Jika 'Tidak', setakat manakah kulit anda menjadi masalah semasa kerja atau belajar?</b></li> </ul>		User shall need to tick one of below answer: a) Yes: 3 b) No: If 'No' then allow user to choose: <ul style="list-style-type: none"> <li>A lot: 2</li> <li>A little: 1</li> <li>Not at all: 0</li> </ul> c) <b>Not relevant: 0</b>
8.	How much has your skin created problems with your partner or any of your close friends or relatives? <i>Setakat manakah kulit anda menimbulkan masalah dengan teman, rakan baik atau saudara-mara anda?</i>		User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1 d) Not at all: 0 e) Not relevant: 0
9.	How much has your skin caused any sexual difficulties? <i>Setakat manakah kulit anda menyebabkan sebarang masalah hubungan seks?</i>		User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1 d) Not at all: 0 e) Not relevant: 0
10.	How much of a problem has the treatment for your skin been, for example by making your home messy, or by taking up time? <i>Setakat manakah rawatan kulit anda menimbulkan masalah seperti mengotori rumah anda atau mengambil masa anda?</i>		User shall need to tick one of below answer: a) Very Much: 3 b) A lot: 2 c) A little: 1 d) Not at all: 0 e) Not relevant: 0
11.	<b>DLQI</b>		Auto calculate as below: Total of the Score Question 1 to 10

**Table 3.2.3.12-2 Specific Details – Psoriasis**

**STEP 5**

Click on the  button to save the DLQI record

**STEP 6**

Click on the  button to save and continue with reporting section

### STEP 7

Click on the  button to confirm save record

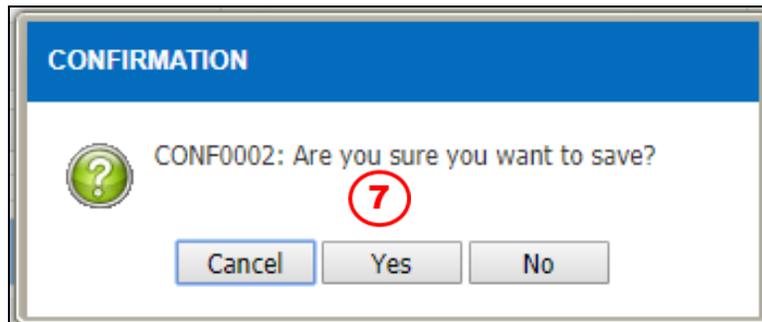
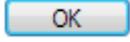


Figure 3.2.3.12-5 Confirmation Alert Message

### STEP 8

Click on the  button to confirm record

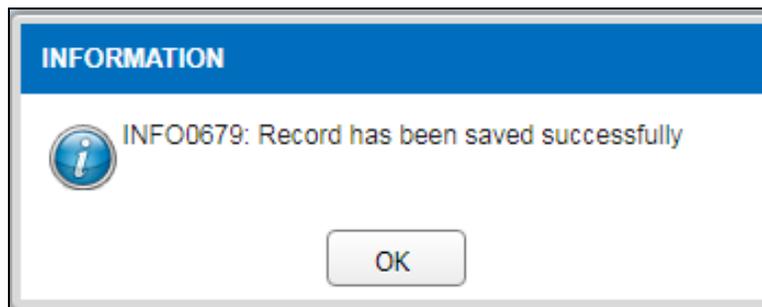


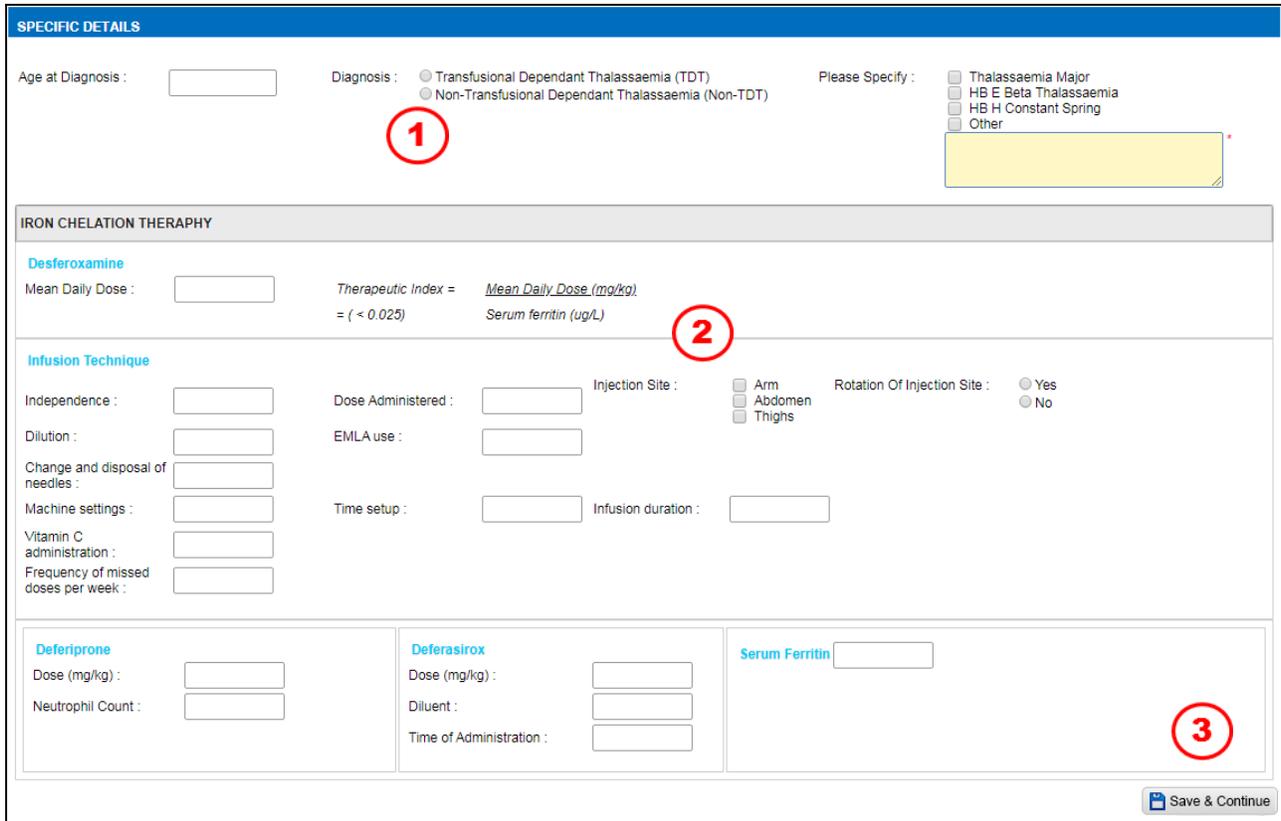
Figure 3.2.3.12-6 Information Alert Message

### Note

- For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.
- If patient has previous history, Psoriasis record will appear in MTAC History

### 3.2.3.13 Thalassaemia

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



**SPECIFIC DETAILS**

Age at Diagnosis :

Diagnosis :  Transfusional Dependant Thalassaemia (TDT)  
 Non-Transfusional Dependant Thalassaemia (Non-TDT)

Please Specify :  Thalassaemia Major  
 HB E Beta Thalassaemia  
 HB H Constant Spring  
 Other

**IRON CHELATION THERAPY**

**Desferoxamine**

Mean Daily Dose :  Therapeutic Index =  $\frac{\text{Mean Daily Dose (mg/kg)}}{\text{Serum ferritin (ug/L)}}$   
= ( < 0.025)

**Infusion Technique**

Independence :  Dose Administered :  Injection Site :  Arm  
 Abdomen  
 Thighs  
Rotation Of Injection Site :  Yes  
 No

Dilution :  EMLA use :

Change and disposal of needles :

Machine settings :  Time setup :  Infusion duration :

Vitamin C administration :

Frequency of missed doses per week :

**Deferiprone**

Dose (mg/kg) :  Neutrophil Count :

**Deferasirox**

Dose (mg/kg) :  Diluent :   
Time of Administration :

**Serum Ferritin**

Figure 3.2.3.13-1 Specific Details – Thalassaemia

**Note**

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

**STEP 1**

Fill up the specific details for Thalassaemia by the below categories:

- Age at Dignosis
- Dignosis
- Please specify type of Thalassaemia

**STEP 2**

Fill up the **Iron Chelation Therapy** details as below :

- Desferoxamine
- Infusion Technique
- Deferiprone

-Deferasirox

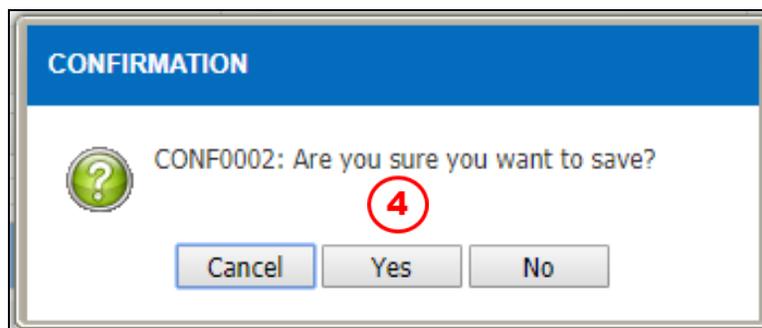
-Serum Ferritin

**STEP 3**

Click on the  button to save and continue with reporting section

**STEP 4**

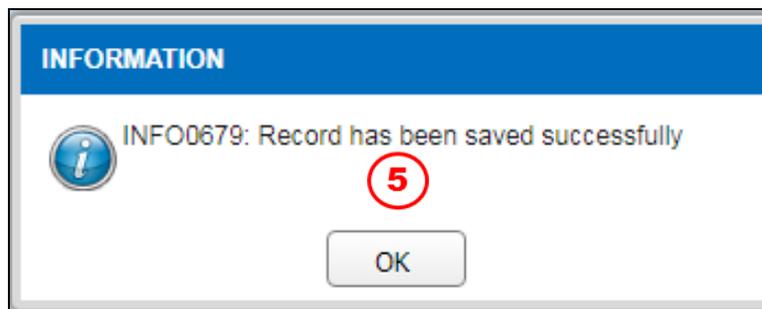
Click on the  button to confirm save record



**Figure 3.2.3.13-2 Confirmation Alert Message**

**STEP 5**

Click on the  button to confirm record



**Figure 3.2.3.13-3 Information Alert Message**

**Note**

- For 'Reporting' section, repeat **Note (Page 28) to Step 32** as in 3.2.1 Create New MTAC Reporting with No Specific Details.
- If patient has previous history, Haemophilia record will appear in MTAC History

## 4.0 Acronyms

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

## 5.0 Links to Clinical Modules

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