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

Pharmacy Based

User Manual
Therapeutic Drug Monitoring (TDM)

Version	**: 9th EDITION**
Document ID	**: PB_U. MANUAL_THERAPEUTIC DRUG MONITORING**

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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 would 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, lV 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 Therapeutic Drug Monitoring (TDM) module and its key features/functionalities. The primary objective is to help guide user through the process of completing PhIS application process. User will understand the following activities in detail:

1.3 Organised Sections

These are the sections within this document:

- Section 1 : Introduction
- Section 2 : Application Standard Features
- Section 3 : Therapeutic Drug Monitoring
- Section 4 : Acronyms
- Section 5 : Links To Clinical Modules

2.0 Application Standard Features

2.1 PhIS Legend

Standard Legend			
LOGIN	Login to PhIS	Logout	Logout from PhIS
Change Password	Change Login Password		Reset Login Screen
	Expand Menu		Collapse Menu
Home	Display Home Tab		Expand Module
	Collapse Module		Close All Open Tabs
	Refresh Screen	Search	Search Record
	Add/Create New Record		Show Help
Prescription	Print	*	Mandatory Field
	Calendar Icon		Search Icon
	Close Window		Radio Button
	Checkbox		Edit Record
	Cancel		Delete Record
	Save	Export to Excel	Export and Open Report in Excel Format
Add Item	Add Item to the list	Delete	Delete Item from the list
Request	Request for Approval	Cancel Request	Cancel the Request
Approve	Approve Transaction	Reject	Reject Transaction
HPSF00088304	Automatically Display/Retrieve Box		Empty Text Box
	Dropdown Box		

TDM Module Legend			
Delete	Delete Record	Update	Update Record
TDM Guidelines	Display TDM Guidelines Details	Add	Add Sampling Details
Update	Update Sampling Details	Drug Info	Display Selected TDM Drug Information
New	Create New TDM Order	Add New Sample	Add New Sampling Details
Place TDM Order	Display TDM Order Screen to Place New TDM Order	Details	Display Reporting Details Screen
Register Patient	Register External Patient for Outsource	Manage Sample	Display External TDM Resulting Screen

Note

To learn more about Login Information, kindly click Login Information module for descriptive steps.

3.0 Therapeutic Drug Monitoring (TDM)

Overview

The Order Management - Therapeutic Drug Monitoring (TDM) module handles all the information to specify the ordered items as per local drug formulary, MOH and non-MOH including registered and non-registered drugs. This function is to enable data mining. All medication orders must be prescribed by authorized personnel only and in compliance with guidelines on prescribing in the drug formulary (drug category, discipline / specialty) as defined by MOH.

User Group

This module is intended for Pharmacist, Assistant Pharmacist and Nurse.

Functional Diagram

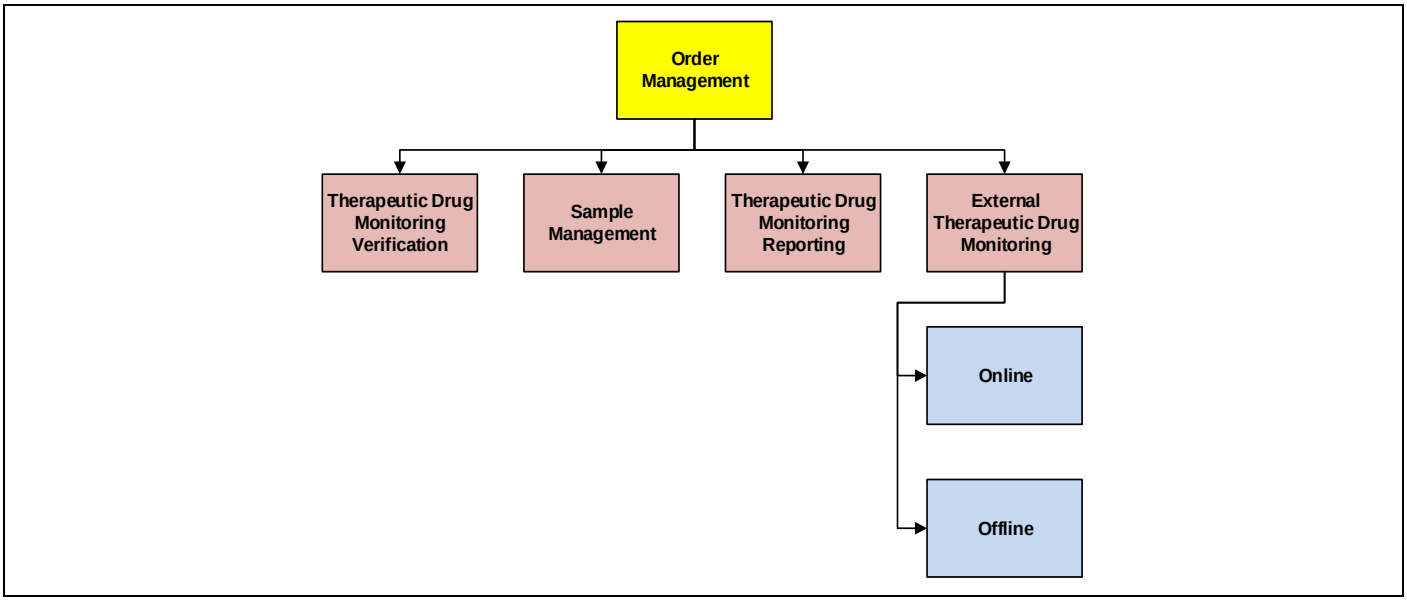


Figure 3.0-1

Functional Description

Therapeutic Drug Monitoring (TDM) comprises of four (4) main functions:

- **Verification**
  Verification is for pharmacist to verify the prescriptions received from order management. This process is mandatory for all prescriptions receive before the user can proceed with reporting.

- **Sample Management**
  TDM Sampling Management is to record the sampling details into the system including information of the samples which need to be send outsource.

- **Reporting**
  TDM Reporting is to enter the TDM resulting and the interpretation to the Doctor.

- **External TDM**
  External TDM is for record TDM resulting received from other facility

3.1 Search Registered Patient

To view existing patient record, perform steps below:

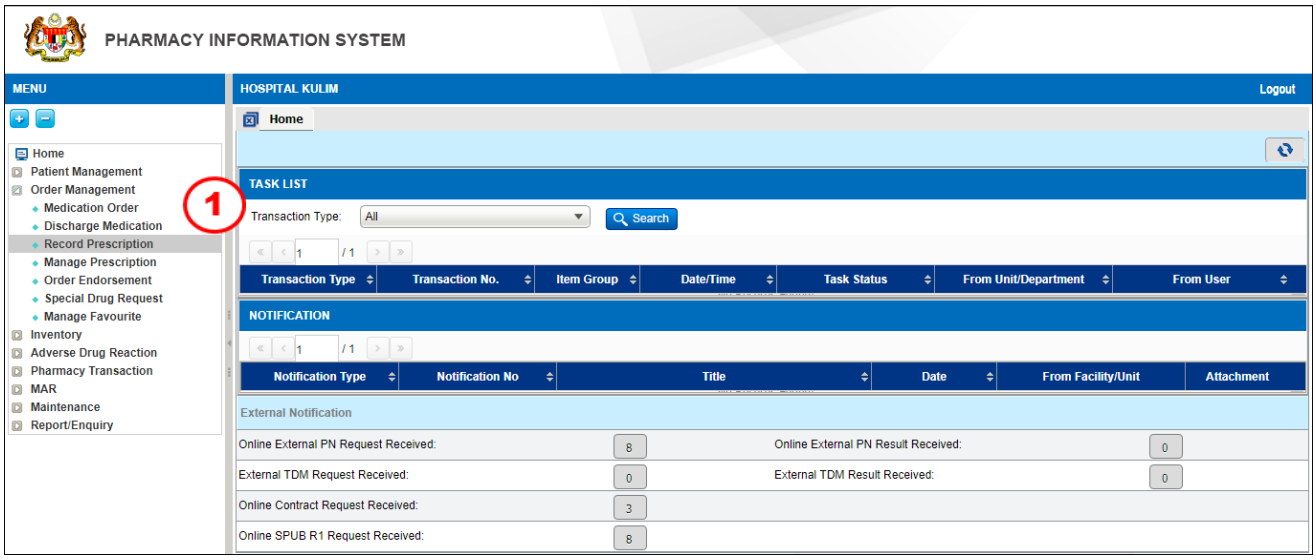


Figure 3.1-1 PhIS Home page

STEP 1

Click on 'Order Management' menu followed by 'Record Prescription' and screen will be displayed as per Figure 3.1-1

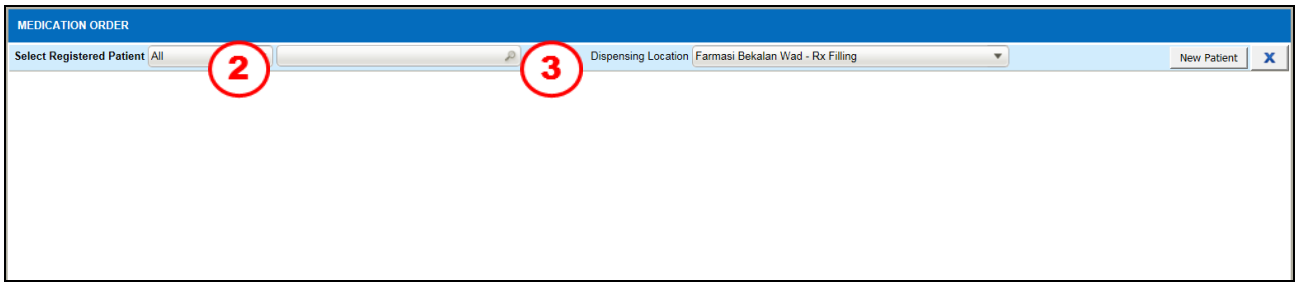


Figure 3.1-2 Medication Order

STEP 2

Enter registered patient name

STEP 3

Click on the button to search for a registered patient

Note

- This page is used to search for a registered patient
- If the patient is not registered, click on the New Patient button and the Patient Registration screen will be displayed.

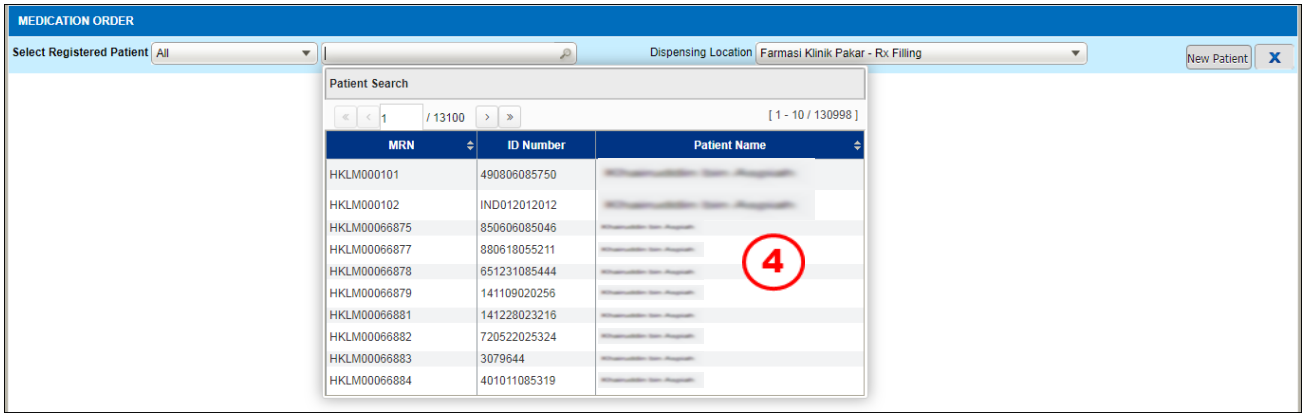


Figure 3.1-3 Search Patient

STEP 4

Double-click on the selected patient and the details will be displayed as per Figure 3.1-4

Note

- Click on the 'Renew Visit' hyperlink to renew a visit for the same location.
- Select the 'Visit Type' and 'Location' to create a new visit.
- Click on the Visit Management button to assess 'Visit Management' Screen. (Refer to Appendix 1).

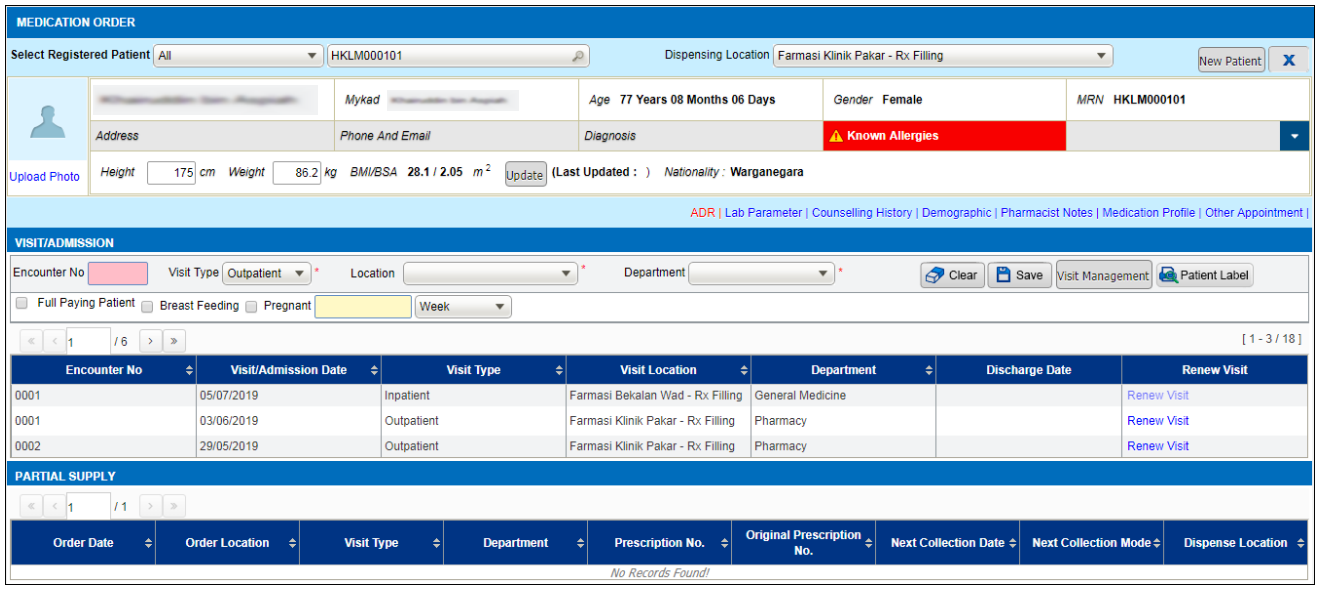


Figure 3.1-4 Medication Order Screen

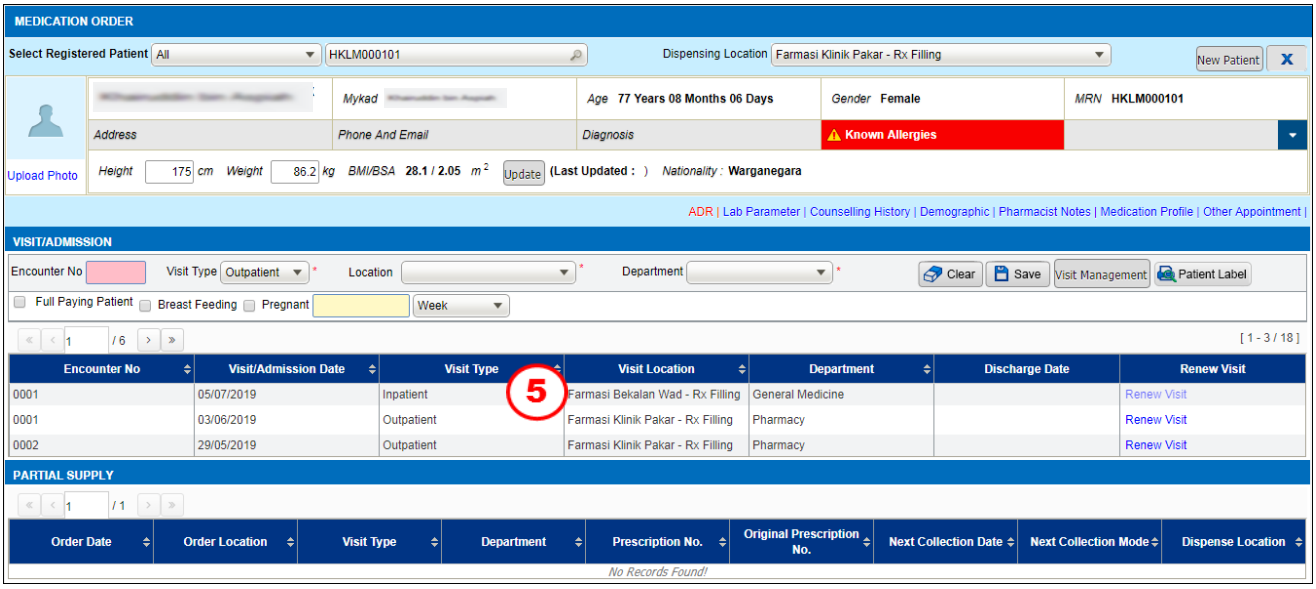


Figure 3.1-5 Visit/Admission Detail

STEP 5
Double-click on the selected visit as per Figure 3.1-5

3.2 New Patient Registration

This page is used to register new patient

To register new patient in to the system, perform the steps below:

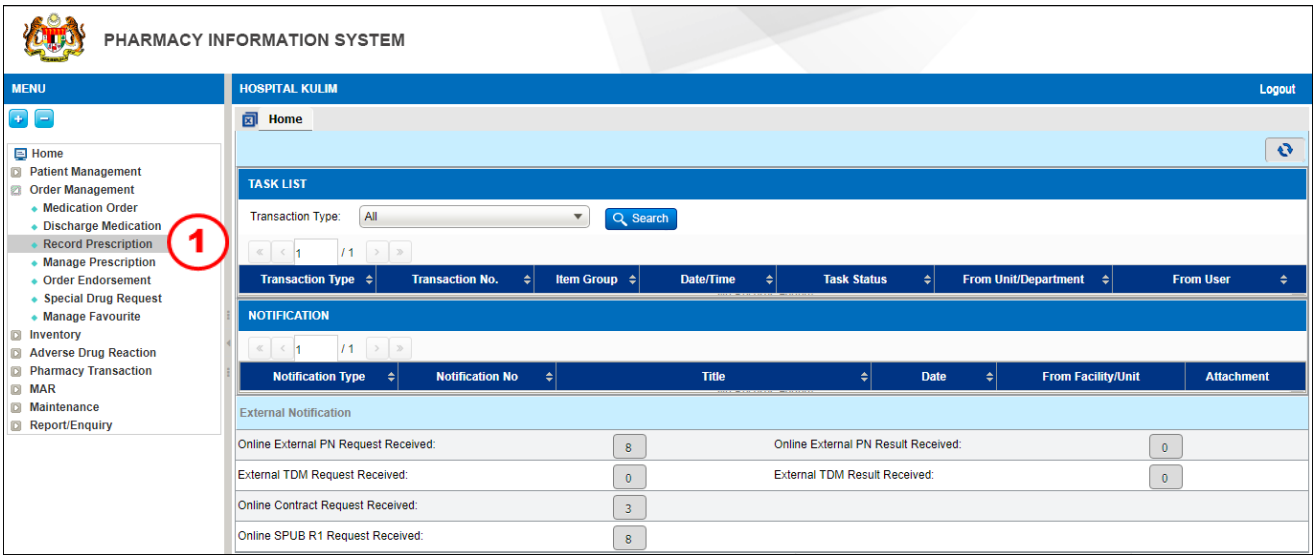


Figure 3.2-1 PhIS Home Page

STEP 1

Click on 'Order Management' menu followed by 'Record Prescription and screen will be displayed as per Figure 3.2-1

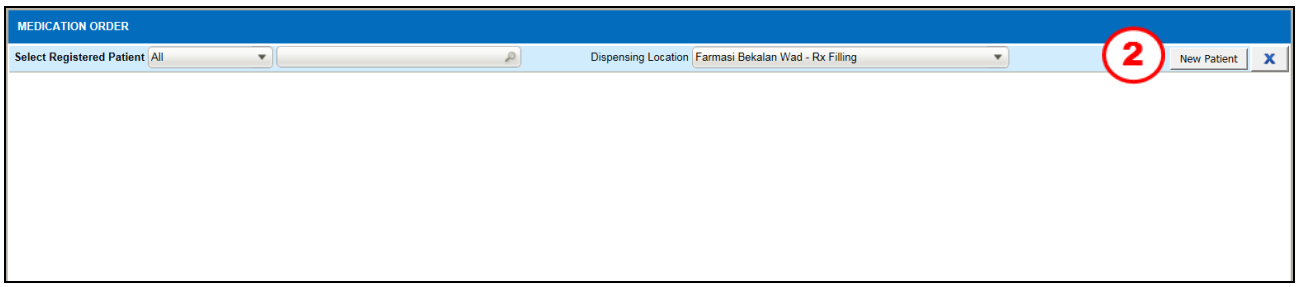


Figure 3.2-2 Transcribe Order Create New Patient

STEP 2

Click on the New Patient to register for new patient

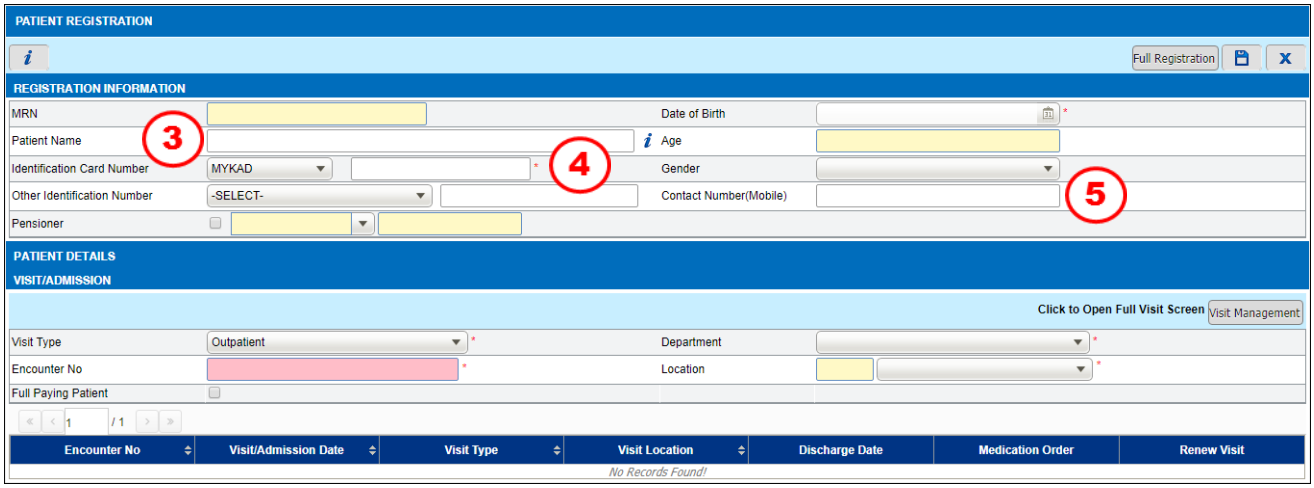


Figure 3.2-3 Registration Information

STEP 3
Enter ***Patient Name***

STEP 4
Select from ***Identification Card Number*** drop down box:
- MYKAD
- MYKID

and enter the relevant number

Note

- After entering the Identification Card Number, the below details will be displayed:
  - Date of Birth (dd/mm/yy)
  - Age (Y M D)
  - Gender (Male/Female/Unknown)

- If MYKAD/MYKID is unavailable, user is required to select the Other Identification Number dropdown box:
  - BIRTH CERTIFICATE
  - DRIVING LICENSE
  - FATHER IC
  - MILITARY CARD NUMBER
  - MOTHER IC
  - OLD IC
  - PASSPORT
  - PENSION CARD
  - POLICE CARD NUMBER
  - UNKNOWN PATIENT
  - WORK PERMIT

  and enter the relevant number.

STEP 5
Enter ***Contact Number (Mobile)***

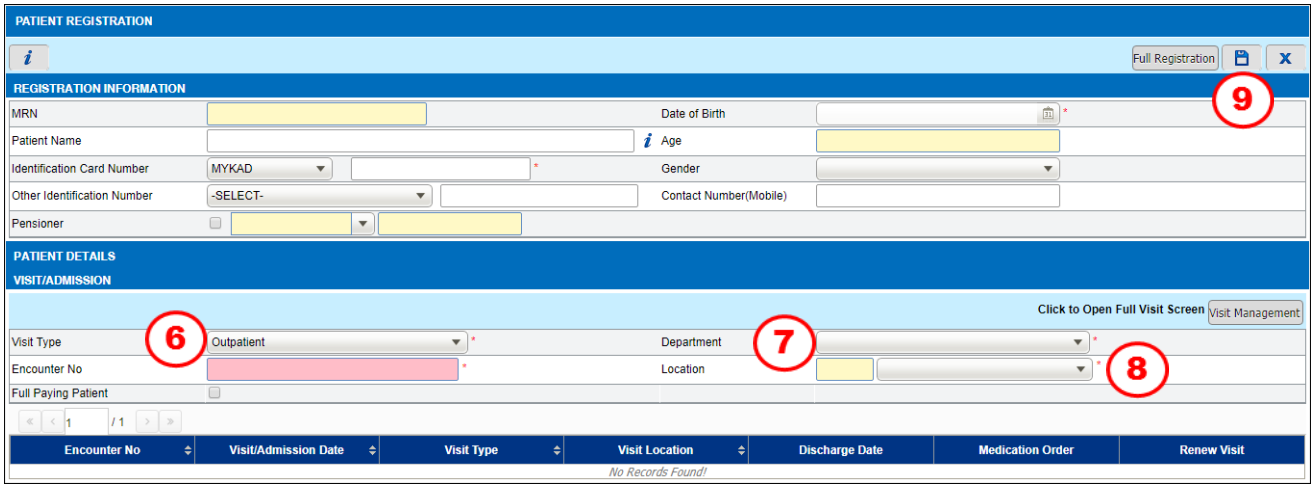


Figure 3.2-4 Visit/Admission

STEP 6
Select the ***Visit Type*** from dropdown box:

- Daycare
- Emergency
- Inpatient
- Outpatient
- Outsource
- SPUB
- Walk-in

STEP 7
Select the ***Department*** from dropdown box:

Note
Department will tie to the selected ***Visit Type.***

STEP 8
Select ***Location*** from dropdown box

Note
Location will tie to the selected ***Department***.

STEP 9
Click on the button to save the record and medication order screen will display as per Figure 3.2.5

Note

- *After clicking the save button, system will automatically generate the MRN (Medical Record Number) and , and buttons will be enabled.*
- *Click on the Full Registration button to assess 'Visit Management' Screen. (Refer to Appendix 2).*
- *Another option to register a new patient is to click on the New Patient Registration button located under Patient Quick Registration that will display the same screen as Figure 3.2-3.*

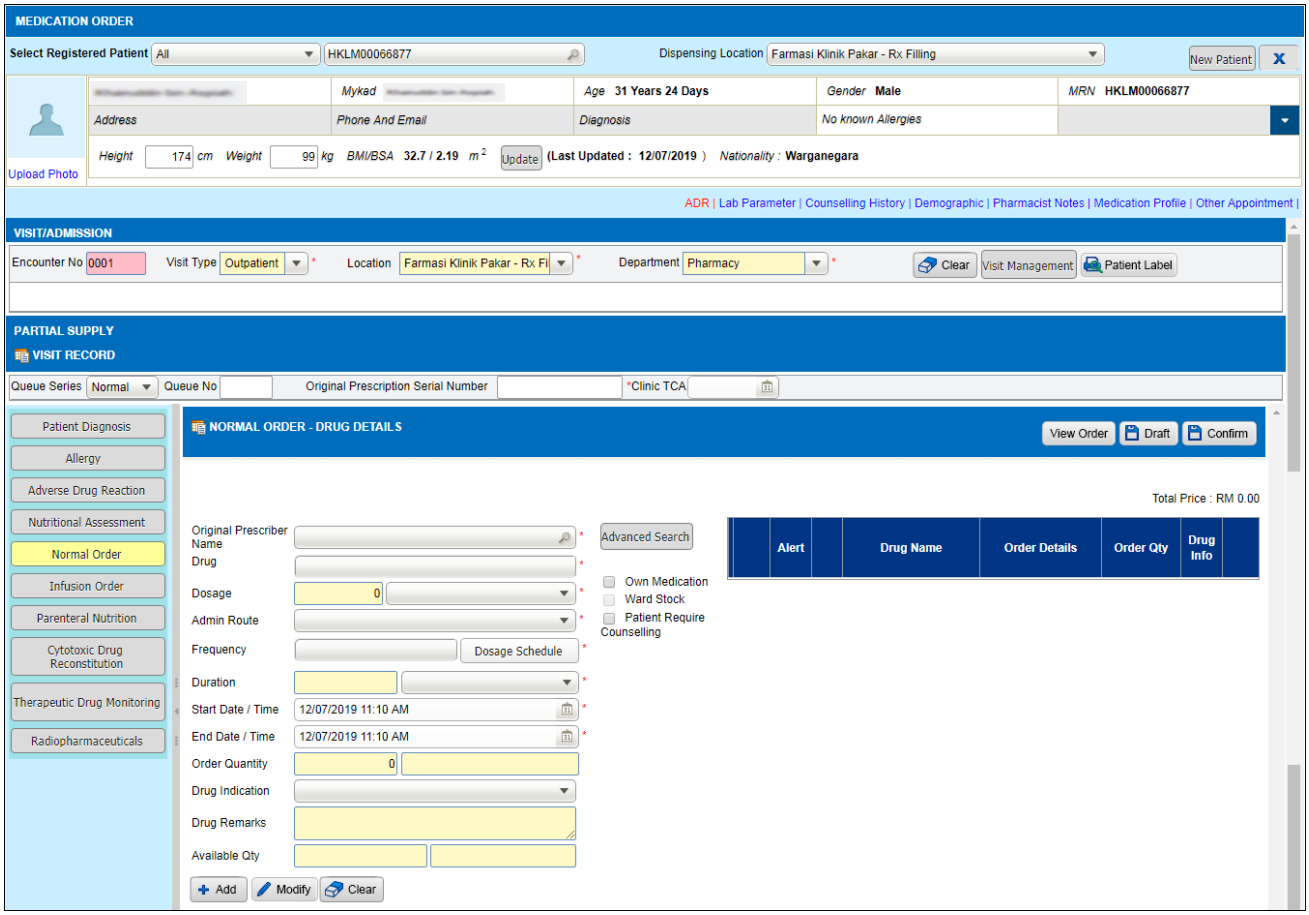


Figure 3.2-5 Medication Order

3.3 Therapeutic Drug Monitoring (TDM) Order

Perform these steps below to create new order for TDM

TDM Order screen allows Prescriber to place TDM Services order. The order will be sent to Pharmacist for verification and reporting.

TDM Order User Groups:

- **Authorised Pharmacist**

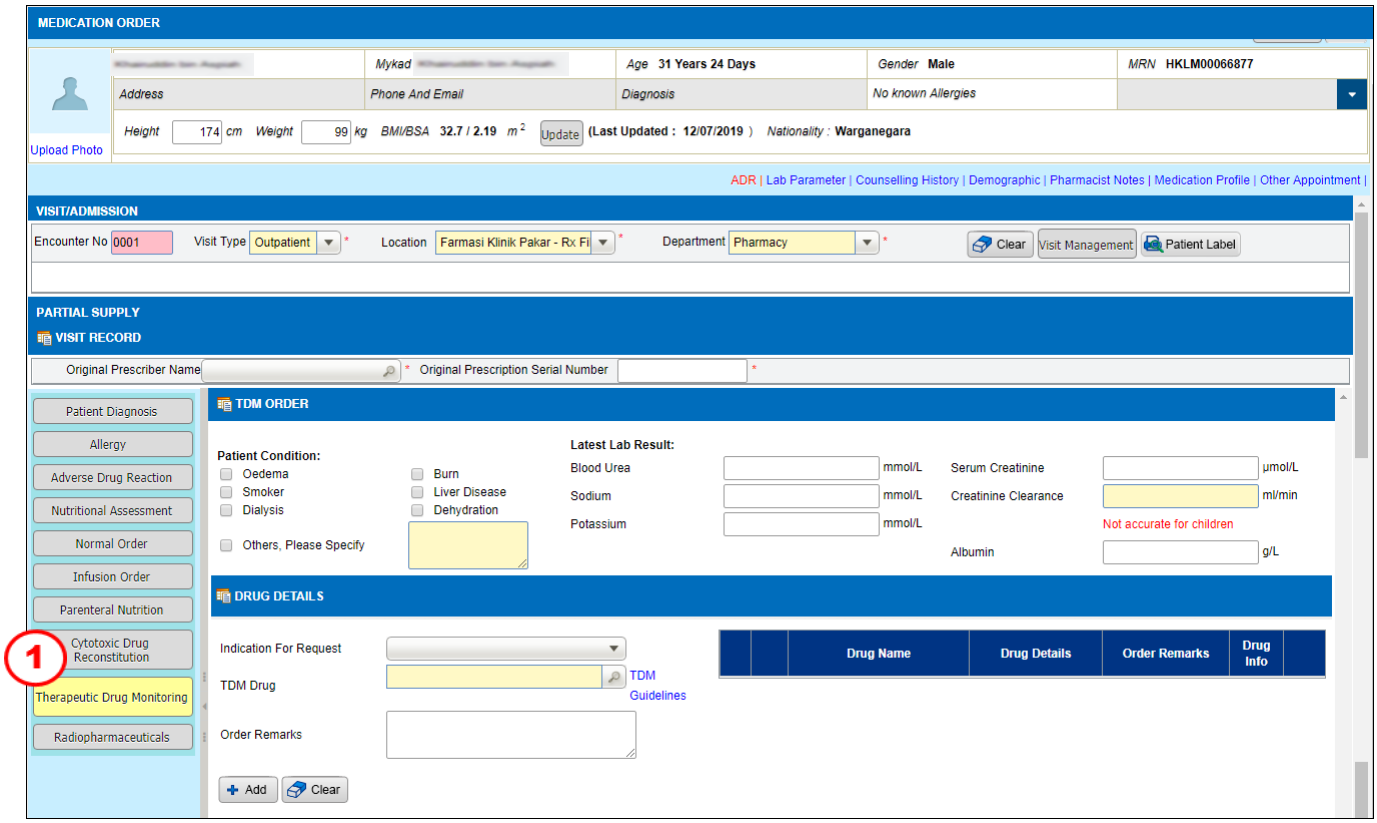


Figure 3.3-1 Medication Order

STEP 1

Click on the Therapeutic Drug Monitoring button to create TDM order

Note

- *User is allowed to update patient's height and weight and click on the* Update *button and system will automatically calculate the BMI/BSA in m².*
- *Visit Record will display Breast Feeding and Pregnant checkboxes only if the patient is a female.*
- ***User is allowing to do multiple TDM Order***

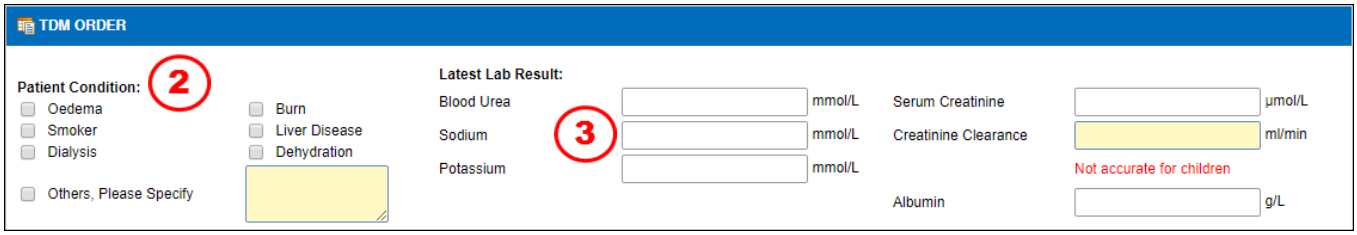


Figure 3.3-2 TDM Order

STEP 2
Select ***Patient Condition*** checkbox(es):

- Oedema
- Burn
- Smoker
- Liver Disease
- Dialysis
- Dehydration
- Others

Note

- *User may select more than one condition.*
- *If 'Others' is selected, user needs to state the patient's condition in the text box provided.*
- *Fill in Order **Remarks** if applicable.*

STEP 3
Enter ***Latest Lab Result*** which consists of:

- Blood Urea
- Sodium
- Potassium
- Serum Creatinine
- Creatinine Clearance
- Albumin

Note

- *Creatinine Clearance will be automatically calculated by system in ml/min when Serum Creatinine is filled.*
- *Lab result data will be updated in the **Lab Result** hyperlink*

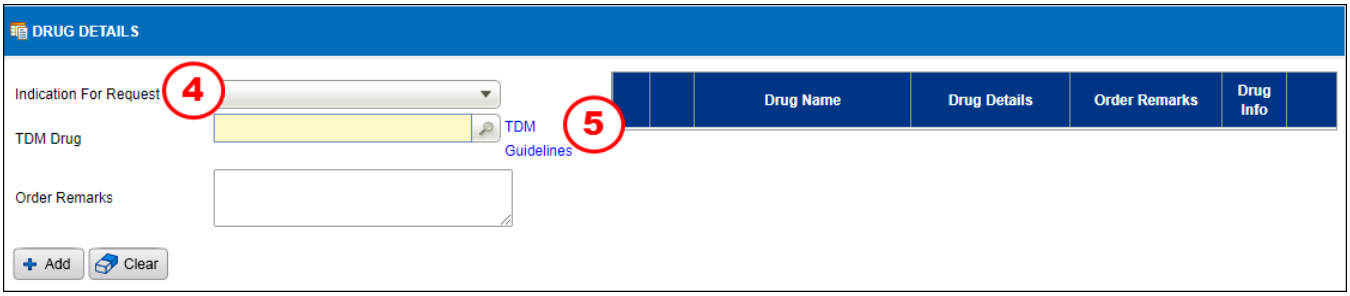


Figure 3.3-3 TDM Drug Details

STEP 4
Select ***Indication For Request*** from dropdown box:

- Non Compliance
- Poor Response
- Therapeutic Monitoring
- Suspected Toxicity

Note

- *Selected Indication For Request will be the search key for TDM Drug field.*

STEP 5
Click on the button to search for TDM drug based on:

- Current Medication
- Previous Medication
- All Drugs

Note

- *If the selected Indication for Request 'Non Compliance/ Poor Response/ Therapeutic Monitoring', TDM Drug search can be select from three (3) sources :*
- *Current Medication*
  - *Medication which patient still take and active in the system as drug classified as TDM drug only*
- *Previous Medication*
  - *Medication which patient taken before and completed in the system as drug classified as TDM drug only*
- *All Drugs*
  - *All medication classified in TDM drug*
- *If the selected TDM Drug is the Current Medication or Previous Medication, system will automatically display the Drug Details as per Figure 3.3-4.*
- *Click on* TDM Guidelines *hyperlink to view TDM Guideline details on the selected TDM Drug as per Figure 3.3-5.*
- *TDM Guideline master setup is controlled by HQ.*
- *If the selected Indication for Request is 'Suspected Toxicity', TDM Drug search will default to 'All drugs' which comes from drugs that have been set in TDM Guideline master.*
- *The Drug Details field will be a free text field for user to enter the current dosage and frequency as per Figure 3.3-7.*

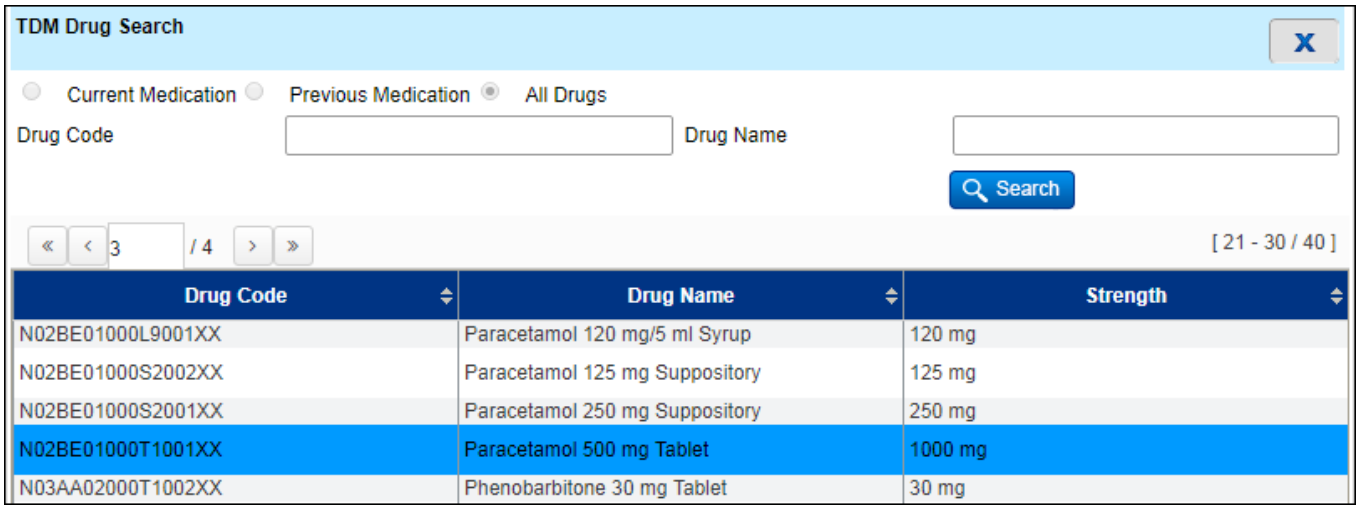


Figure 3.3-4 Drug Search

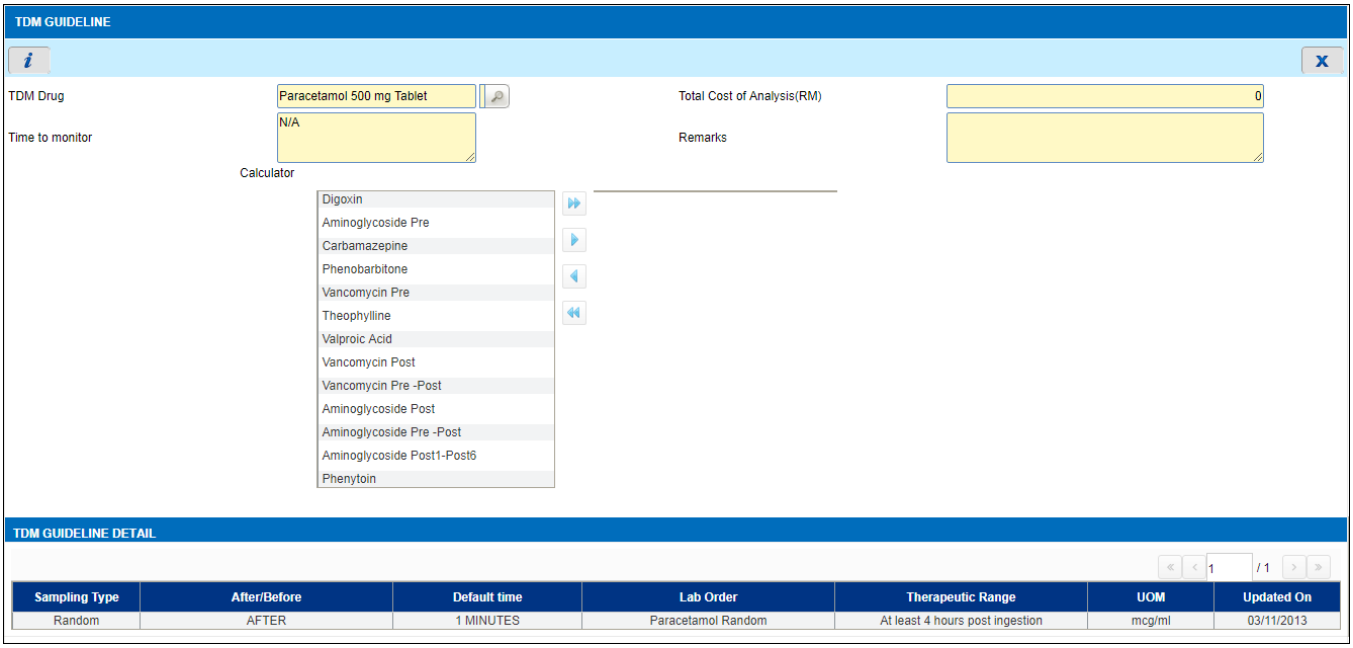


Figure 3.3-5 TDM Guidelines

Figure 3.3-6 Drug Details

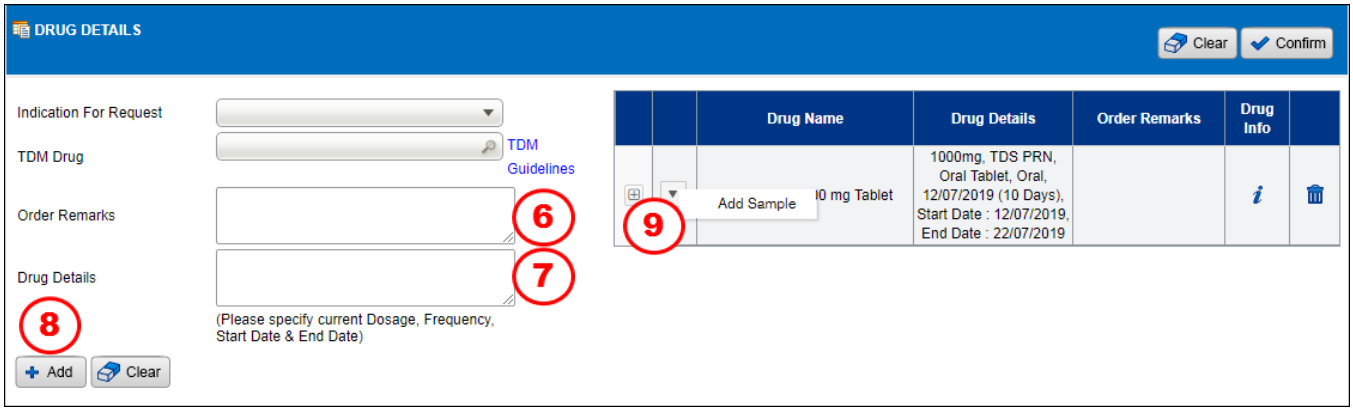


Figure 3.3-7 Drug Details

STEP 6
Fill the **Order Remark** if necessarily.

STEP 7
Fill the **Drug Detail**.

Note
- *Please specify current **Dosage, Frequency, Start Date & End Date** if choose '**All Drug'** for TDM Drug Request.*

STEP 8
Click on the [Add] button to added drug and will be display as Figure 3.3-7

Note
- *Click on the [Modify] button to change any information.*
- *Click on the [Clear] button to clear the drug detail part before added any new information.*

STEP 9
Right click on the [▼] to fill in sampling details, sampling details screen will be displayed as Figure 3.3-8

Note
- *There are several sampling types that can be choose*
  - *Post 1*
  - *Post 2*
  - *Post*
  - *Pre*
  - *Random*
- *Screen for Sampling Details will be displayed differently based on selected 'Indication For Request' below:*
- *Sampling Type will be displayed differently based on chosen medication together from TDM guideline Example:*
  - *Paracetamol for random and pre-sampling.*
  - *Vancomycin for Pre, post and random sampling*
  - *If 'Suspected Toxicity', Sampling Type is defaulted to 'Random' and the 'Suggested Sampling Date/Time' field will be displayed as per Figure 3.3-9.*

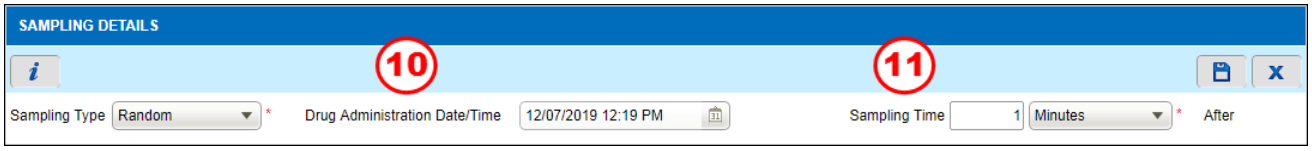


Figure 3.3-8 Sampling Details

STEP 10
Click on the [31] button to select **Drug Administration Date/Time**
Note
***Drug Administration Date/Time**" to be default as empty and change the time format to 12 Hour format*

STEP 11
Select ***Sampling Time*** from dropdown box and enter ***Interval*** and select Hours/Minutes

Note
The Interval field is only enable if user choose the Indication for Request as Non Compliance/Poor Response/Therapeutic Monitoring.

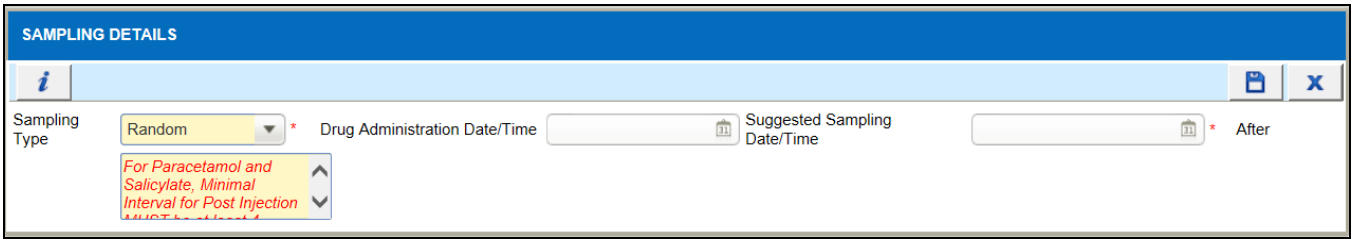


Figure 3.3-9 Sampling Details

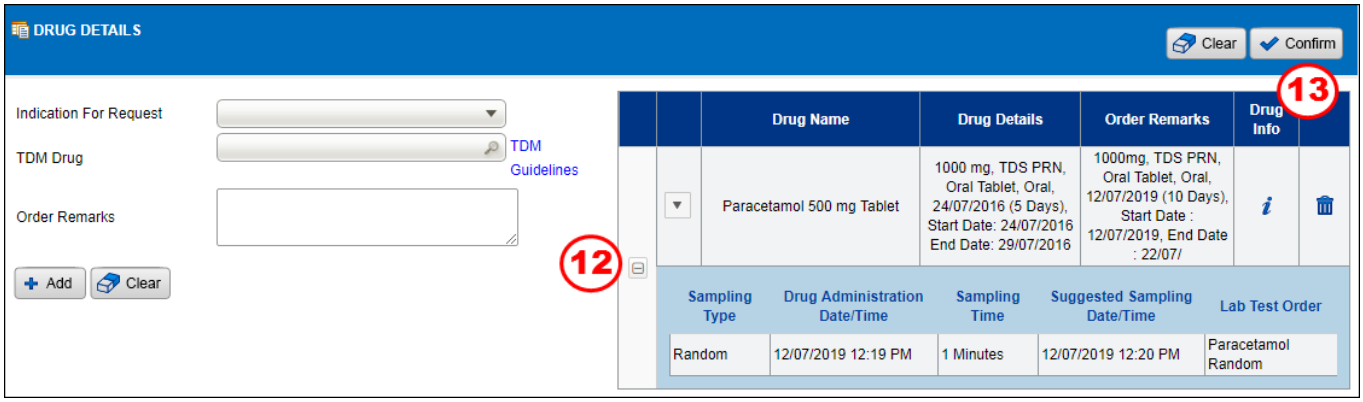


Figure 3.3-10 Drug Details

STEP 12

Click on the ⊞ to view the sampling details added as Figure 3.3.10

STEP 13

Click on the Confirm to confirm TDM order and TDM Order No. will be generated.

Note

- *Click on the* Yes *button to confirm the record as Figure 3.3-11*

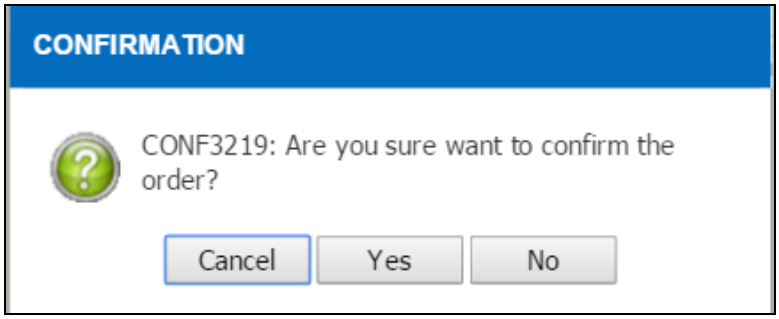


Figure 3.3-11 Confirmation alert message

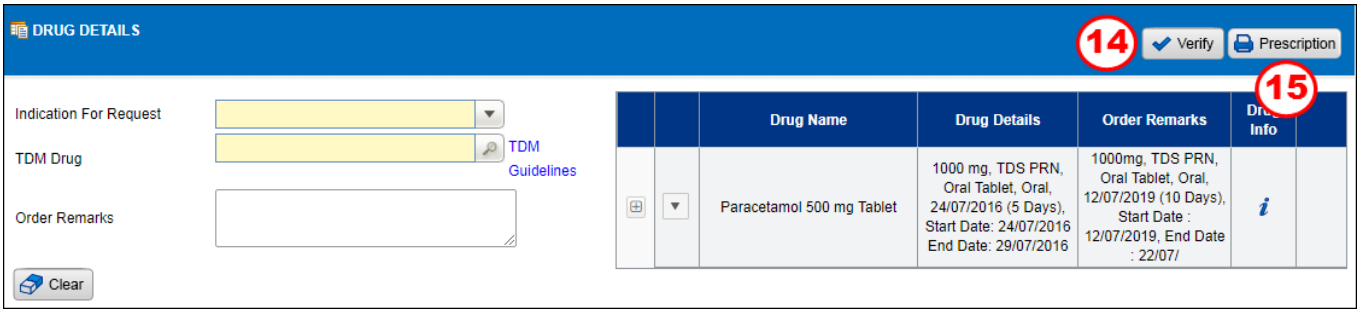


Figure 3.3-12 Verify Sampling Details

STEP 14

Click on the Verify button to verify order

Note

- *Order Status changed to "Verified" as Figure 3.3-14*
- *Users not allowed to update sampling details if order status is "Verified".*
- *Click on the* Yes *button to verify the record.*

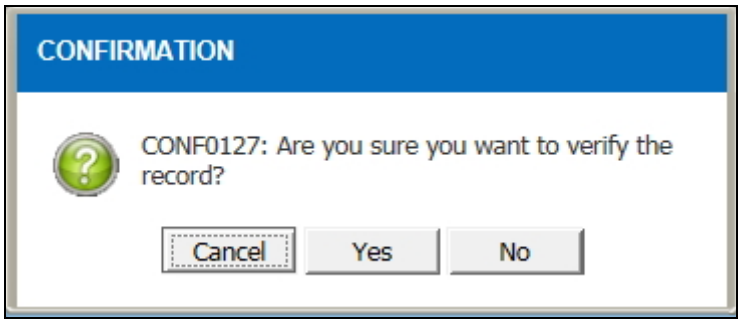


Figure 3.3-13 Confirmation Alert Message

STEP 15

Click on the Prescription button to print TDM Request Form as per Figure 3.3-15

Note

- *Click on the* Clear *button to clear all entered data.*
- *Click on the* New *button to create a new TDM Order and the system will reset all fields in TDM Order screen as Figure 3.3-14*

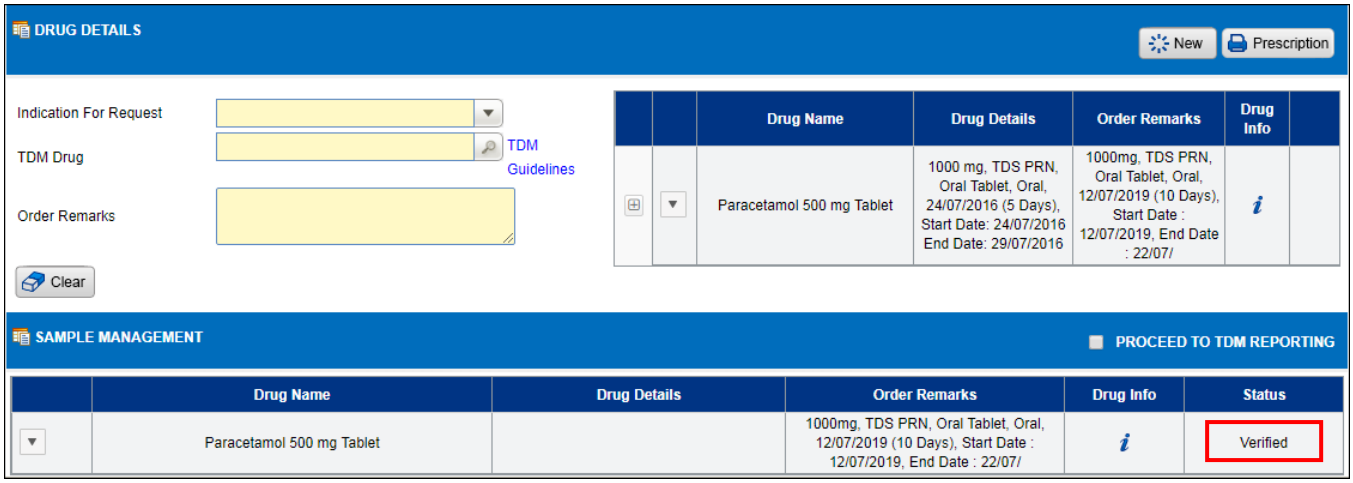
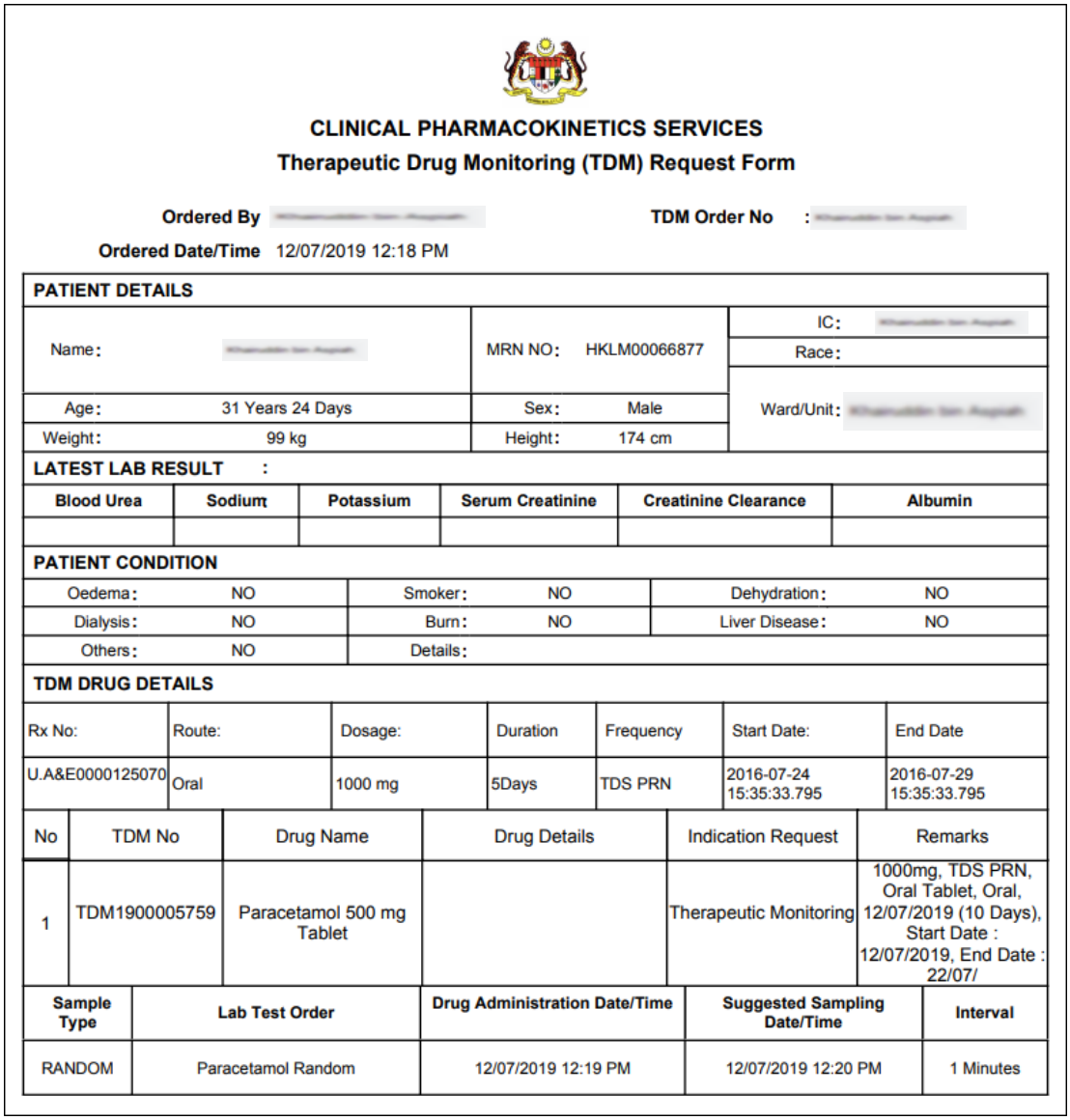


Figure 3.3-14 Verified Sampling Details



CLINICAL PHARMACOKINETICS SERVICES

Therapeutic Drug Monitoring (TDM) Request Form

Ordered By [redacted] **TDM Order No** : [redacted]

Ordered Date/Time 12/07/2019 12:18 PM

PATIENT DETAILS

Name: [redacted]	MRN NO: HKLM00066877	IC: [redacted]	
		Race:	
Age: 31 Years 24 Days	Sex: Male	Ward/Unit: [redacted]	
Weight: 99 kg	Height: 174 cm		

LATEST LAB RESULT :

Blood Urea	Sodium	Potassium	Serum Creatinine	Creatinine Clearance	Albumin

PATIENT CONDITION

Oedema:	NO	Smoker:	NO	Dehydration:	NO
Dialysis:	NO	Burn:	NO	Liver Disease:	NO
Others:	NO	Details:			

TDM DRUG DETAILS

Rx No:	Route:	Dosage:	Duration	Frequency	Start Date:	End Date
U.A&E0000125070	Oral	1000 mg	5Days	TDS PRN	2016-07-24 15:35:33.795	2016-07-29 15:35:33.795

No	TDM No	Drug Name	Drug Details	Indication Request	Remarks
1	TDM1900005759	Paracetamol 500 mg Tablet		Therapeutic Monitoring	1000mg, TDS PRN, Oral Tablet, Oral, 12/07/2019 (10 Days), Start Date : 12/07/2019, End Date : 22/07/

Sample Type	Lab Test Order	Drug Administration Date/Time	Suggested Sampling Date/Time	Interval
RANDOM	Paracetamol Random	12/07/2019 12:19 PM	12/07/2019 12:20 PM	1 Minutes

Figure 3.3-15 TDM Request Form

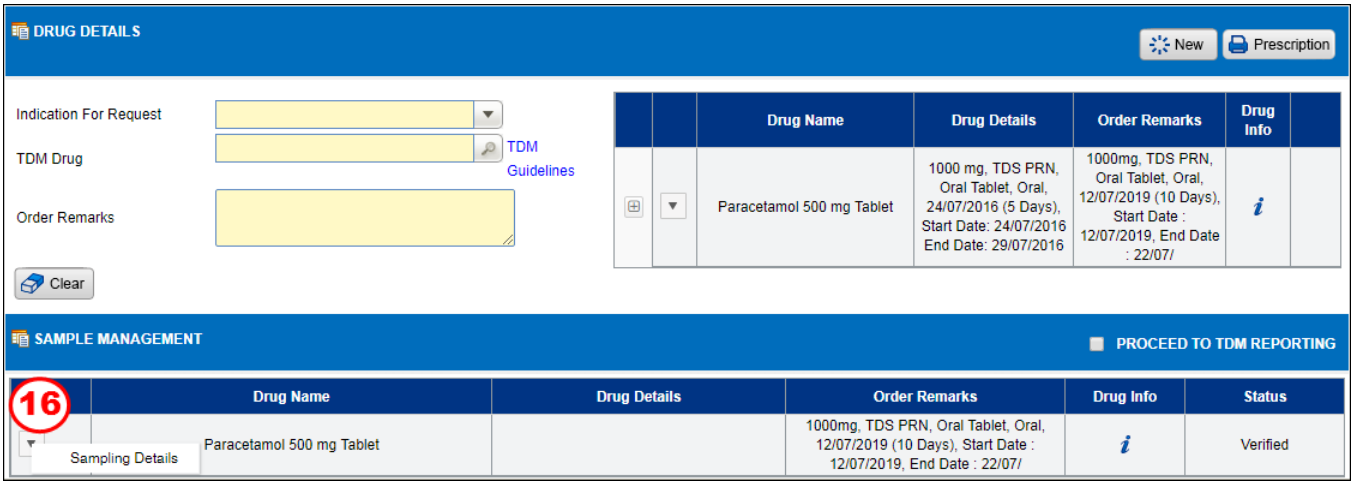


Figure 3.3-16 Sampling Details

STEP 16

Right click on the ▼ fill in sample management details, sample management details pop up screen will be displayed as Figure 3.3.17

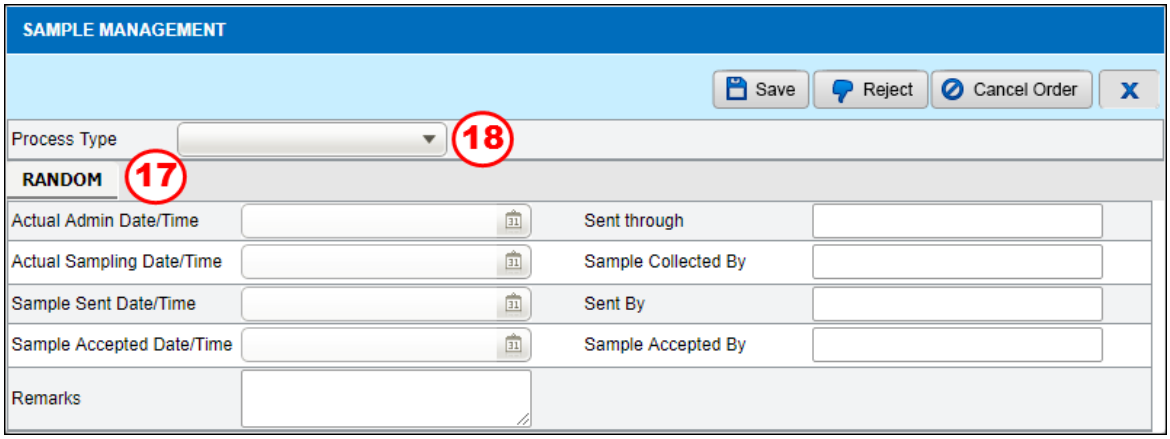


Figure 3.3-17 Sample Management

STEP 17

Enter details in these fields:

- *Actual Admin Date/Time*
- *Actual Sampling Date/Time*
- *Sample Sent Date/Time*
- *Sample Accepted Date/Time*
- *Remarks*
- *Sent Through*
- *Sample Collected By*
- *Sent By*
- *Sample Accepted By*

Note

- *If have more than one sample, record will be display in the next tab.*

STEP 18
Select ***Process Type*** from dropdown box:

- Lab Based
- Outsource
- Pharmacy Based

Note

- *If Process Type is "Outsource", user needs to select which facility to send the order to under Auto complete search drop down and click on the* Send *button.*

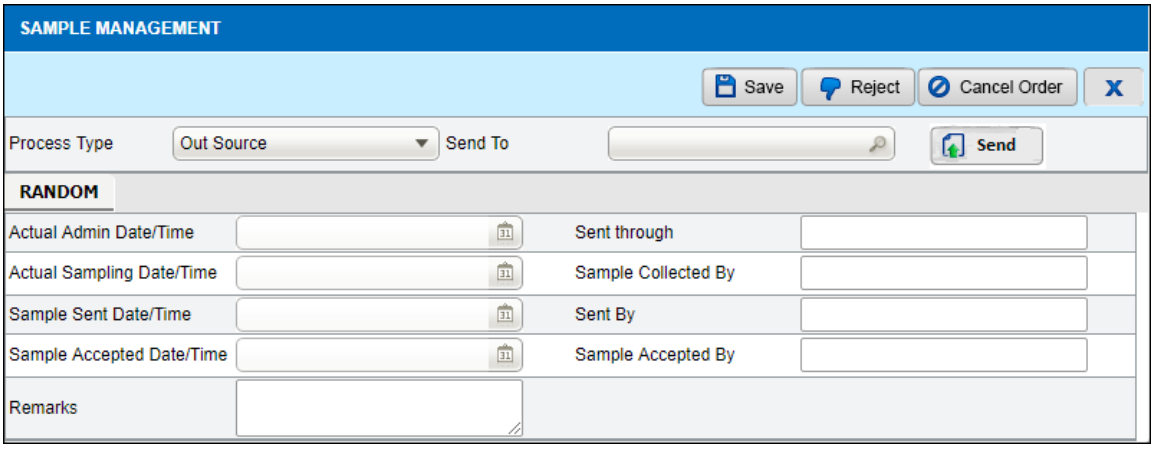


Figure 3.3-18 Sample Management – Out Source

Figure 3.3-19 search Other Facility

- *Click on the* Reject *button to reject the sampling details. User needs to place a new order.*
- *Click on the* Cancel Order *button to cancel the order. User may not need to place new order.*

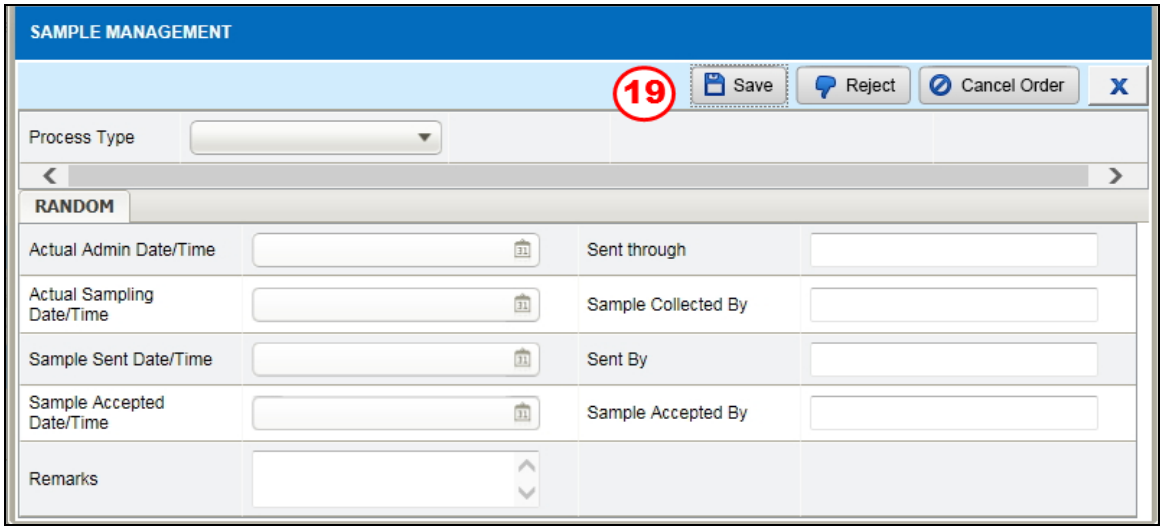


Figure 3.3-20 Save Sample Management

STEP 19

Click on the Save button to save record

Note

- *Click on the* Yes *button to save the record.*
- *Order Status changed to "Sample Accepted" as Figure 3.3-22*

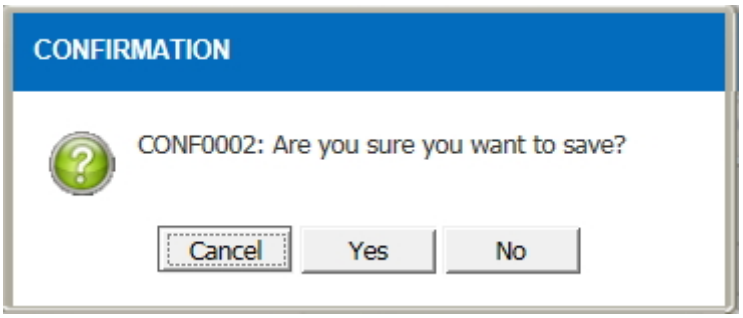


Figure 3.3-21 Confirmation Alert Message

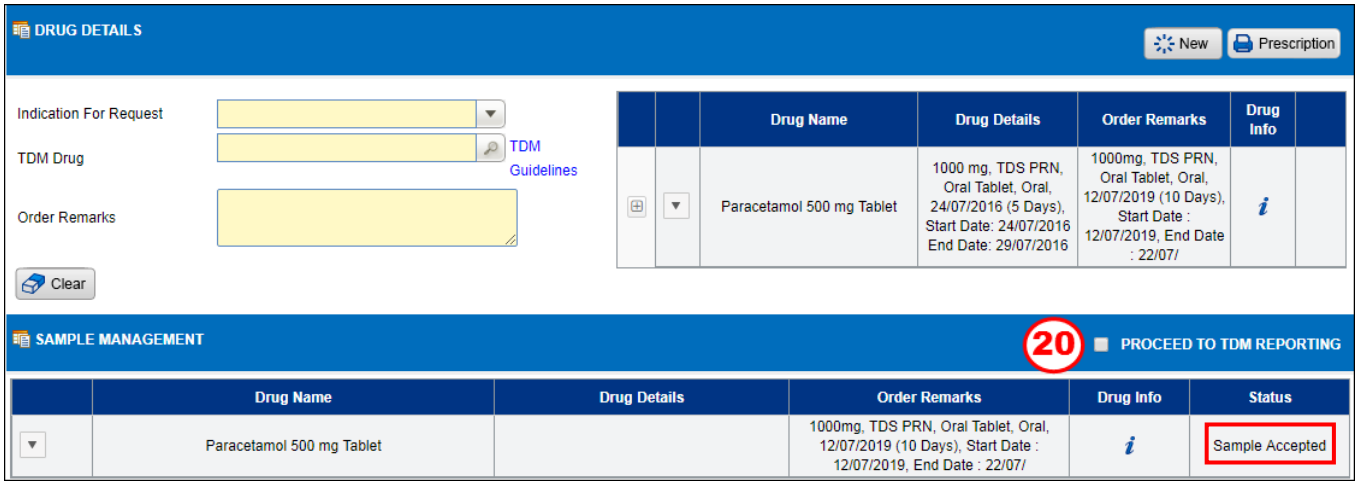


Figure 3.3-22 Proceed to Reporting

STEP 20

Select the PROCEED TO TDM REPORTING to perform the TDM reporting.

Note

- *Click on the* Yes *button to proceed to the TDM reporting and screen will be displayed as Figure 3.3-24*

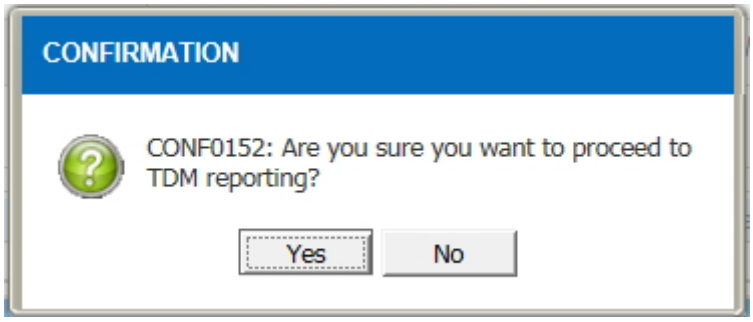


Figure 3.3-23 Confirmation Alert Message

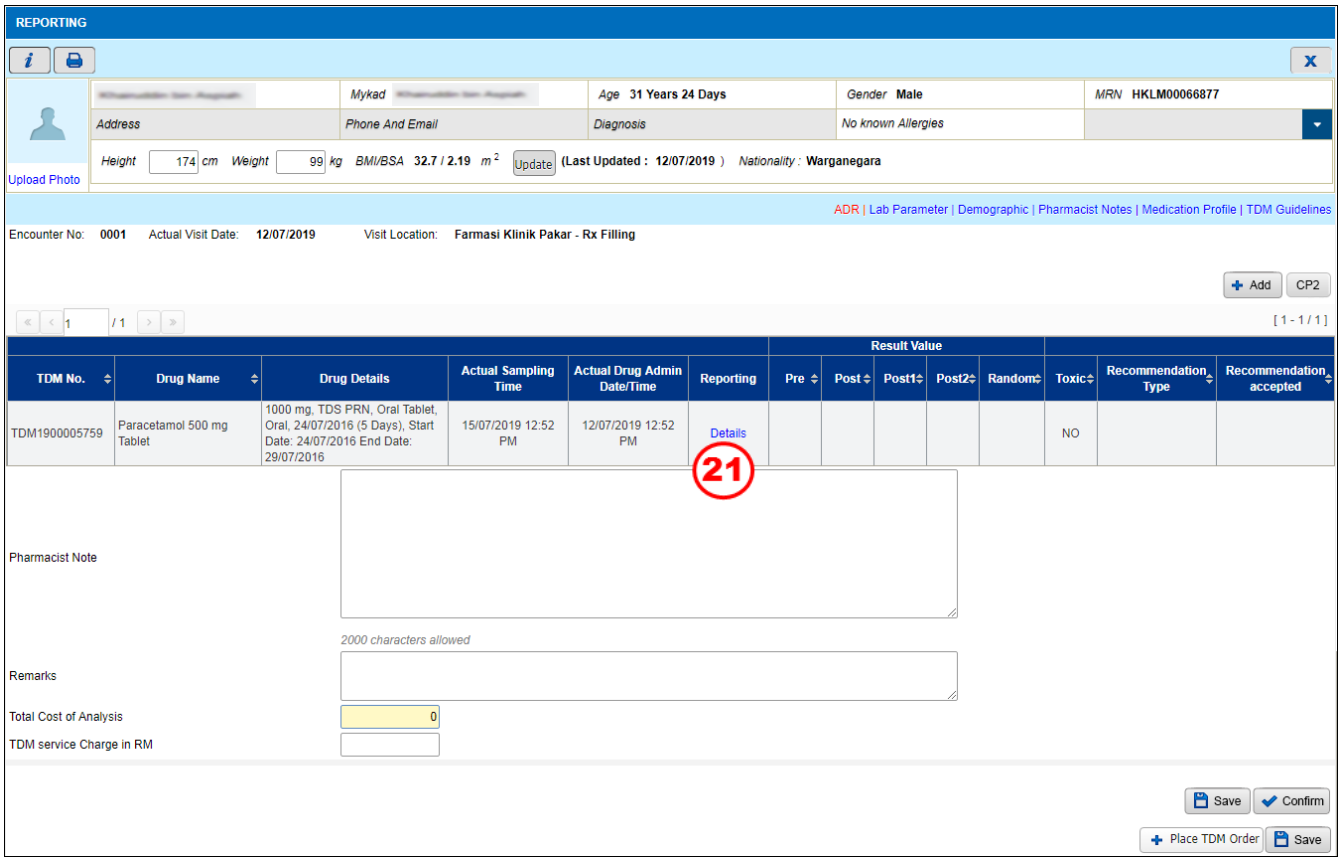


Figure 3.3-25 TDM Reporting

STEP 21

Click on Details hyperlink to display Reporting screen

Note

- *User needs to enter sample details for pre-sample, post sample or random sample based on TDM order.*
- *Latest Lab Result will display the latest lab results recorded for:*
  - *Blood Urea*
  - *Sodium*
  - *Potassium*
  - *Serum Creatinine*
  - *Creatinine Clearance*
  - *Albumin*

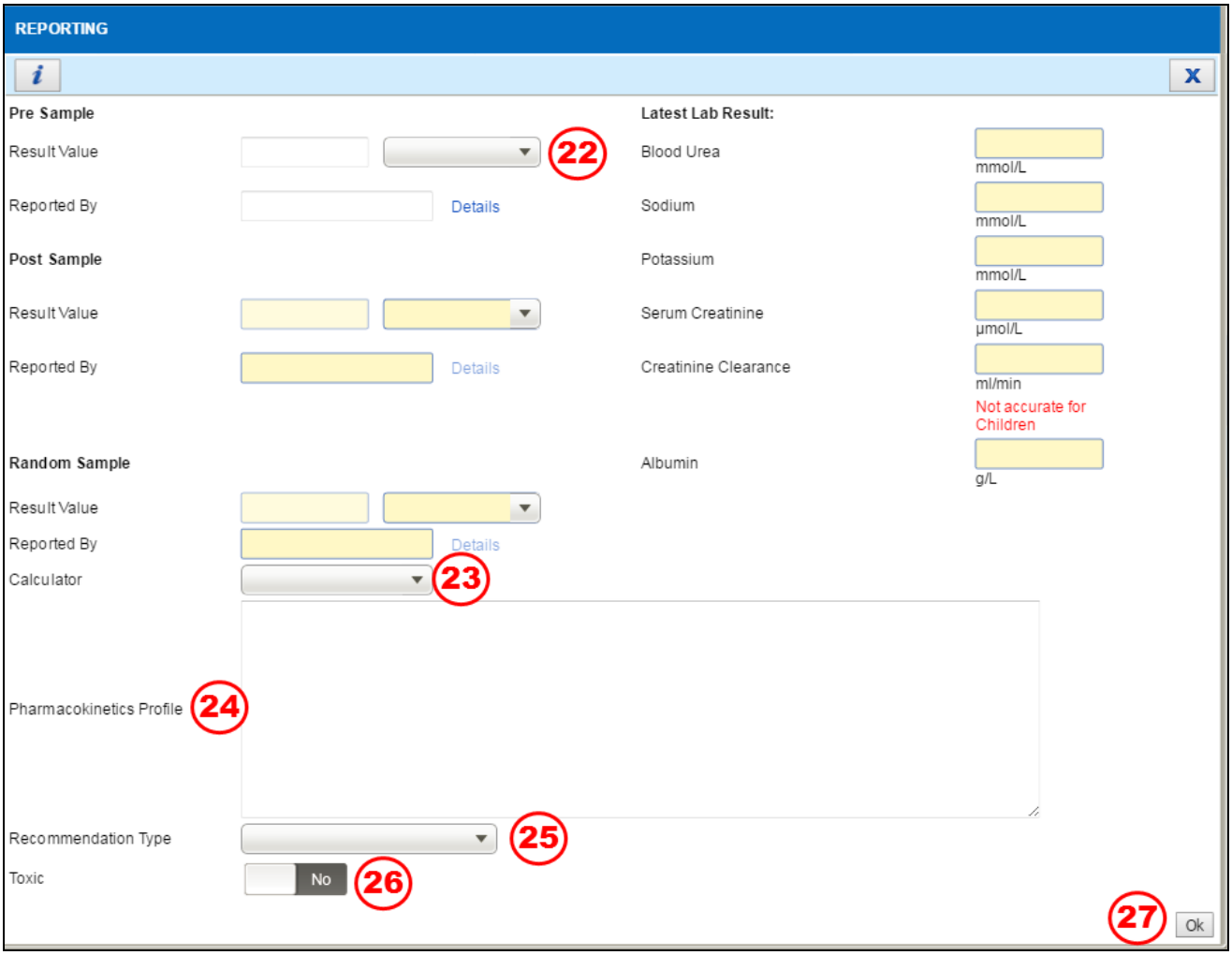


Figure 3.3-26 Reporting Detail

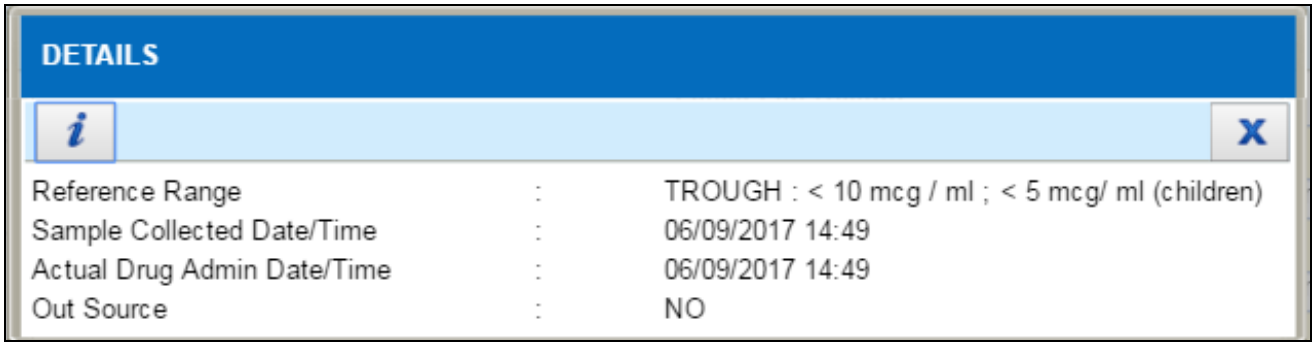


Figure 3.3-27 Sample Details

STEP 22

Enter sample details as below:

- Result Value
- Resulted By

Note

Click on Details *hyperlink to view sample details. Sample Details consists of:*

- *Reference Range*
- *Sample Collected Date/Time*
- *Actual Drug Admin Date/Time*
- *Outsource*

STEP 23

Select calculator from dropdown box. Please refer to TDM Calculator to view sample calculator calculation.

STEP 24

Enter ***Pharmacokinetics Profile***

Notes

Pharmacokinetics Profile field will display data entered from the TDM calculator and also can be edited.

STEP 25

Select ***Recommendation Type*** from dropdown box:

- Increase The Dose
- Maintain The Dose
- Reduce The Dose
- Refer to Pharmacist Notes
- Stop The Dose
- Withhold The Dose

Notes

Recommendation Type will be copied and displayed in Pharmacist Notes.

STEP 26

Select ***Toxic***:

- Yes
- No

STEP 27

Click on the Ok button to proceed with TDM reporting process

Note

- *Pharmacist Notes field will automatically display:*
- *Drug Name*
- *Recommendation Type*
- *User may edit Pharmacist Note.*
- *Enter Remarks if applicable.*
- *Total Cost of Analysis will be based on TDM Guideline master setup.*

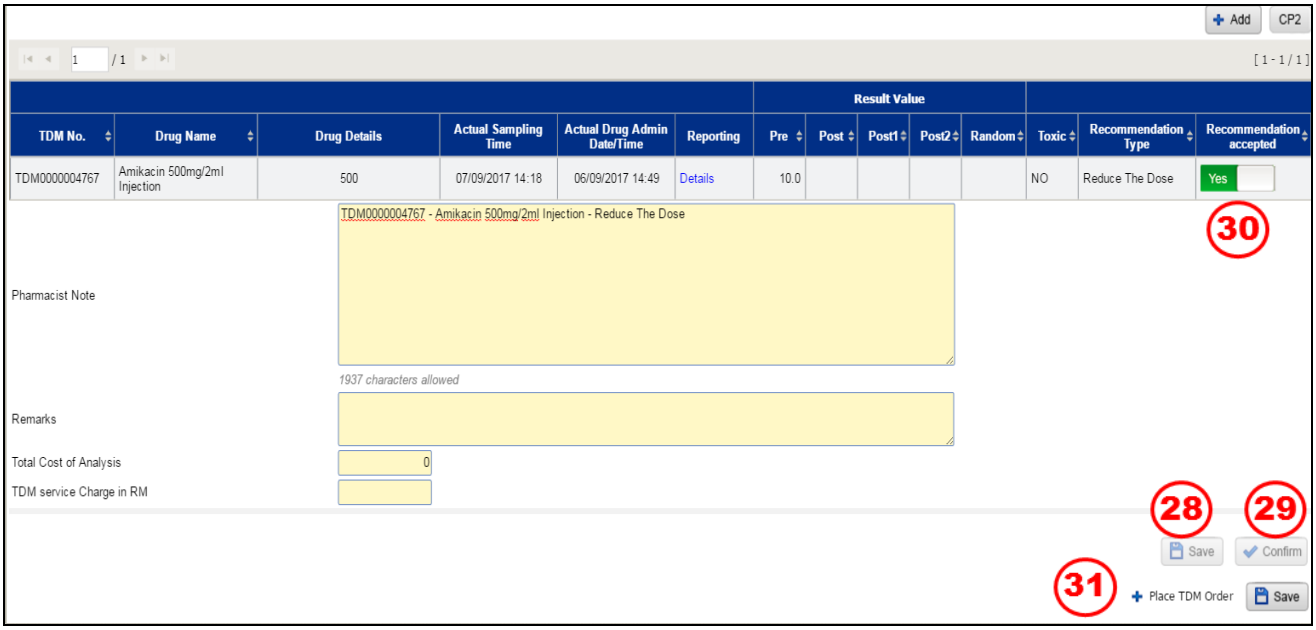


Figure 3.3-28 TDM Reporting

STEP 28

Click on the Save button to save report

STEP 29

Click on the Confirm button to confirm report

Note

The Save button and Place TDM Order button will be enabled.

STEP 30

Click 'Yes' or 'No' at the Yes button under ***Recommendation accepted***

STEP 31

Click on the Save button to authorize the report

Note

- *The status will change to "Result Viewed".*
- *Recommendation Accepted must be select and Save to make sure TDM Process completed and data flow to the report (data mining) accurate.*
- *Click on the Place TDM Order button to place new TDM order.*
- *Click on the button to print TDM Report*

CLINICAL PHARMACOKINETICS SERVICES

Therapeutic Drug Monitoring (TDM) Report

Hospital Pakar Sultanah Fatimah, Muar

Report No: RPT0000002341

PATIENT DETAILS

Name [redacted] IL | MRN NO : HPSF00137158 | IC : [redacted]

Age : 25 Years 08 Months 25 Days | Sex : Female | Race : Malay

Weight : 80 Kg | Height : 155 Cm | Ward/Unit : WAD 9 (MED - P)

No	TDM No	Drug Name	Drug Details	Indication Request	Recommendation Type	Recommendation Accepted	Toxic
1	TDM0000004684	Phenytoin Sodium 100 mg Capsule	300 mg, ON (every night), Oral Capsule, Oral, 26/03/2017 (7 Days), Start Date: 26/03/2017 End Date: 02/04/2017	Therapeutic Monitoring		Yes	No

Sampling Id	Sample Type	Actual Sampling Date Time	Actual Drug Admin Date Time	Result Value	Theraputic Range
HPSF/SM/0000004848	RANDOM	3/27/17 12:00 AM	3/27/17 3:28 PM		TROUGH : 10 – 20 mcg /ml

Pharmacist Note:

DRUG REGIMEN MEASURED LEVEL (mcg/ml) Adjusted level (mcg/ml)
LOADING DOSE IV PHENYTOIN 1G +5.7 14.61
100mg TDS
*Adjusted level was be calculated due to patient on dialysis and hypoalbumin
DESIRED THERAPEUTIC RANGE:
Phenytoin: 10-20 mcg/ml

Comments:
Adjusted level of phenytoin is WITHIN the therapeutic range.
May continue with maintenance of IV Phenytoin 100mg TDS.
Kindly monitor patient's liver function and albumin level.
Please repeat TDM (pre dose) only if patient fits.
Thank you.

Printed Date : 05/09/2017 Printed By : [redacted] Unit Name : STOR FARMASI Source : PhIS

Page 1 of 1

Figure 3.3-29 TDM Report

3.4 External TDM

3.4.1 External TDM Online

External TDM module is for user to record external TDM resulting (Outsource) via online or offline. It will be recorded online if both facilities use PhIS to perform TDM processes.

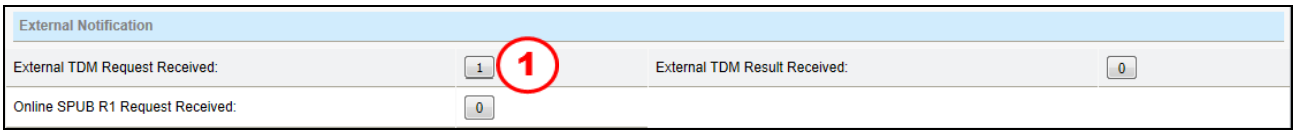


Figure 3.4.1-1 External Notification

STEP 1

Click on the ***External TDM Result Received*** 1 button to view Outsource information

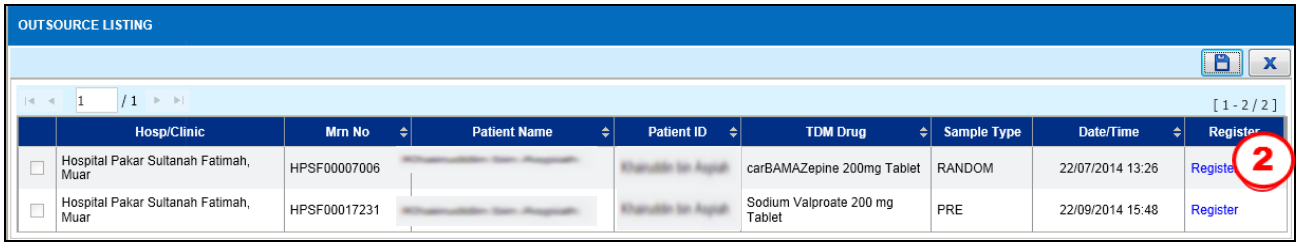


Figure 3.4.1-2 Outsource Listing

STEP 2

Click on ***Register*** hyperlink to register the patient in the system

Note

The status will change to 'Registered' as per Figure 3.4.1-2

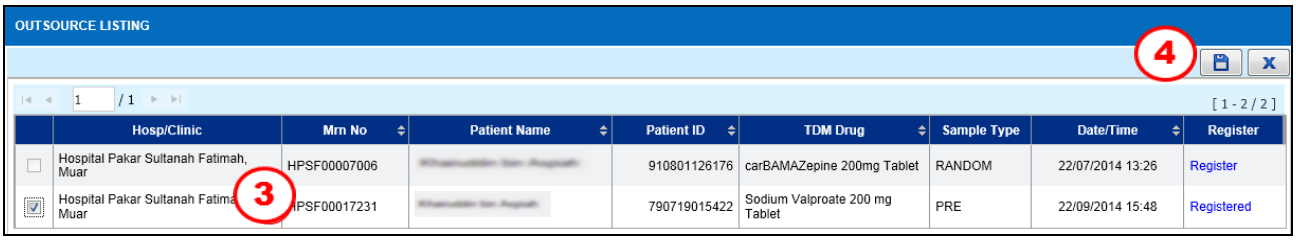


Figure 3.4.1-3 Outsource Listing – Registered Patient

STEP 3

Click on the ☑ checkbox for selected patient

STEP 4

Click on the button to save the record

Note

Registered patient will be uploaded to the External TDM listing page.

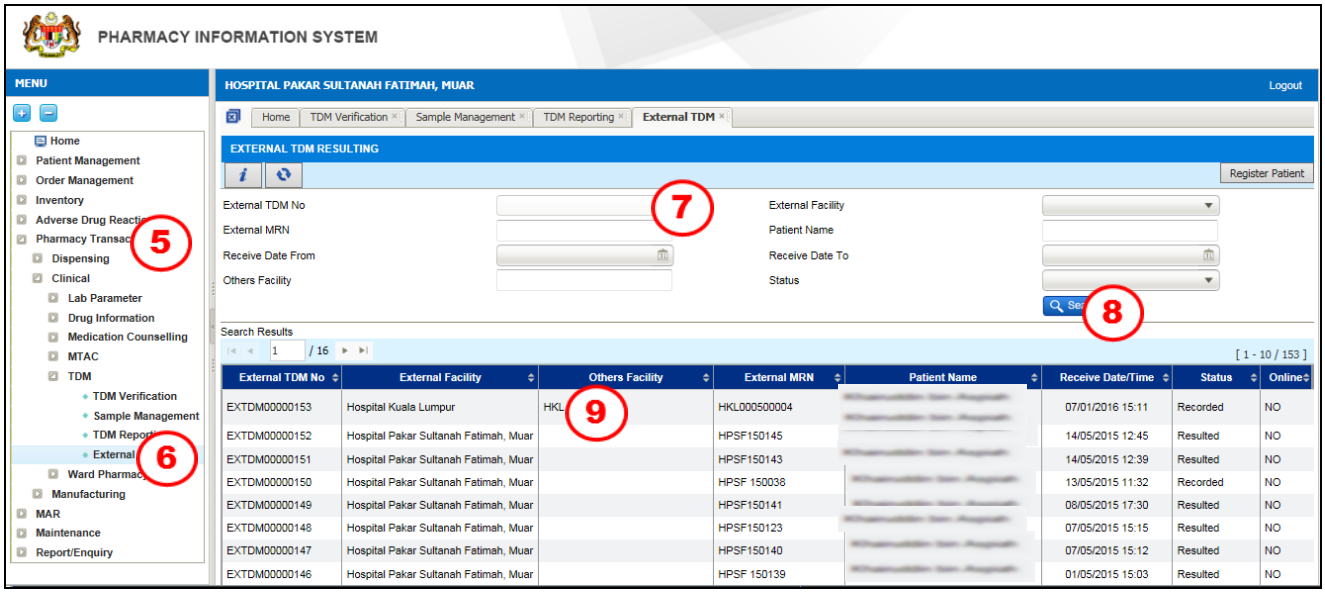


Figure 3.4.1-4 External TDM Listing Page

STEP 5
Click on 'Pharmacy Transaction' menu follow by 'Clinical' sub-menu

STEP 6
Click on 'TDM' and click on 'External TDM' function

STEP 7
Search for patient records by:

a. External TDM No.
b. External Facility
c. External MRN
d. Patient Name
e. Receive Date From
f. Receive Date To
g. Others Facility
h. Status
   - Recorded
   - Rejected
   - Resulted

STEP 8
Click on the Search button to search for patient records

STEP 9
Double-click on the selected patient and External TDM Resulting screen will be displayed as per Figure 3.4.1-5

Note

Register Patient *button is for offline External TDM (refer to* section 3.4.2 External TDM Offline*)*

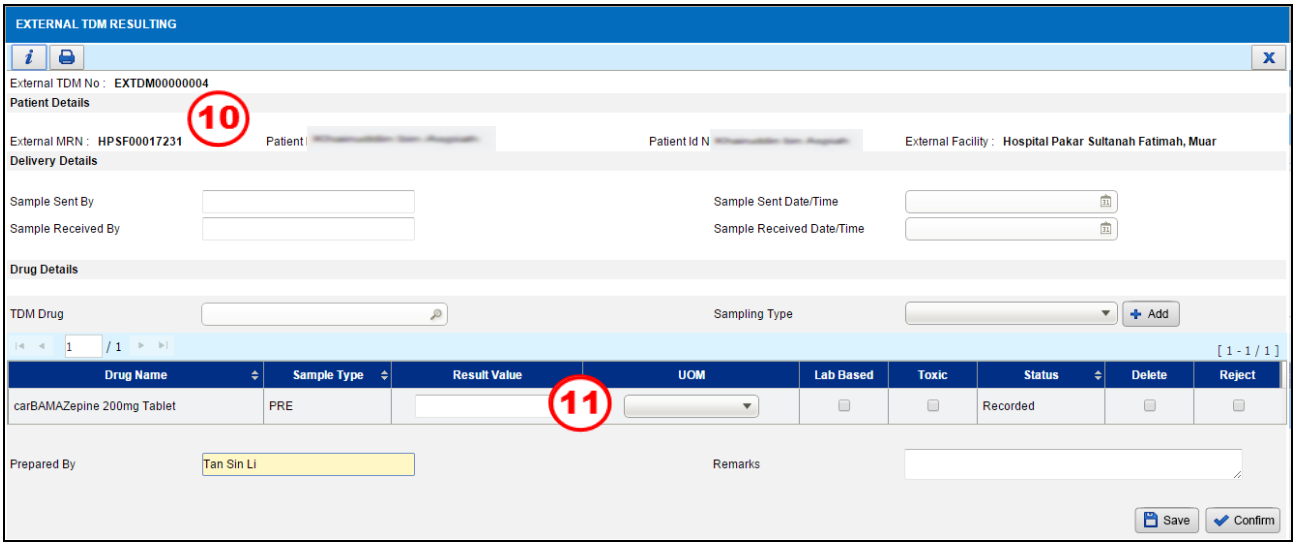


Figure 3.4.1-5 External TDM Resulting

STEP 10

Enter ***Delivery Details*** as below:

a) Sample Sent By
b) Sample Sent Date/Time
c) Sample Received By
d) Sample Received Date/Time

STEP 11

Enter ***Result Value*** and select ***UOM*** from dropdown box :

- mcg/ml
- mg/dl
- mmol/l
- ng/ml

Note

- *Select on ☐ **Lab Based** checkbox if TDM resulting process is done at a laboratory.*
- *Select on ☐ **Toxic** checkbox if TDM results show toxicity for selected patient.*
- *Select on ☐ **Reject** checkbox to reject sampling received.*
- *Select on ☐ **Delete** checkbox to delete TDM order.*
- *Enter **Remarks** if applicable.*

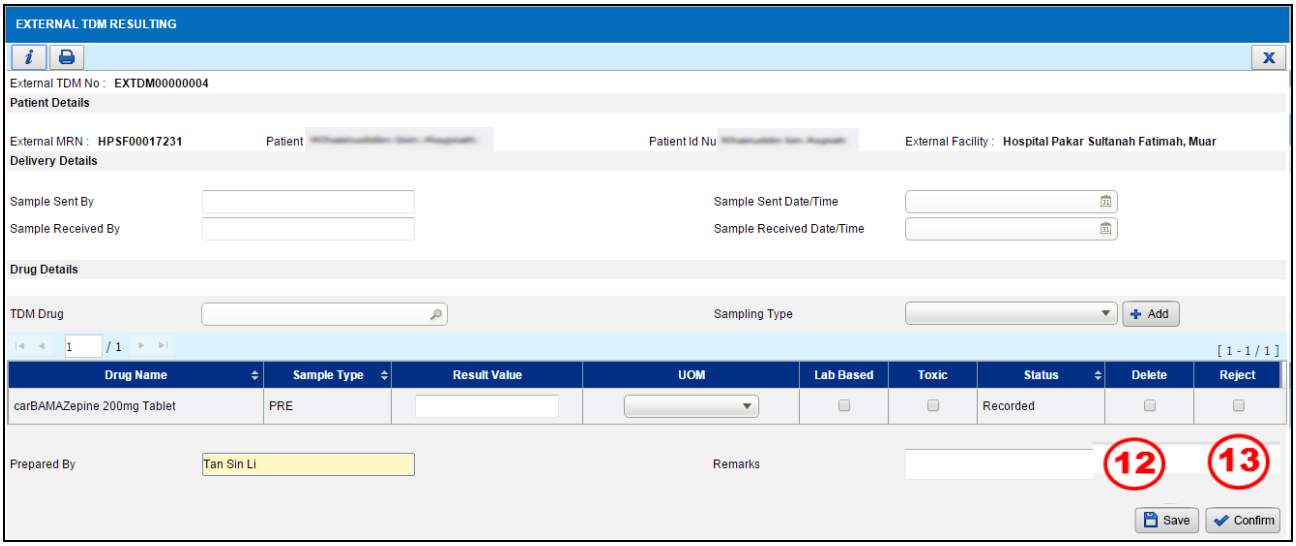


Figure 3.4.1-6 External TDM Resulting

STEP 12

Click on the Save button to save external TDM resulting

STEP 13

Click on the Confirm button to confirm external TDM resulting

Note

- *The status will change to "Resulted".*
- *Outsource TDM Resulting will be sent back to the requester.*

*To receive an **External TDM Result Received:***

- *Click on the **External TDM Result Received** button to view the outsource listing.*
- *Select on ☐ checkbox(es) on selected outsource request.*
- *Click on the button to upload the patient record in order to proceed with TDM Reporting processes.(refer to* section 3.3 Therapeutic Drug Monitoring (TDM) Order *)*

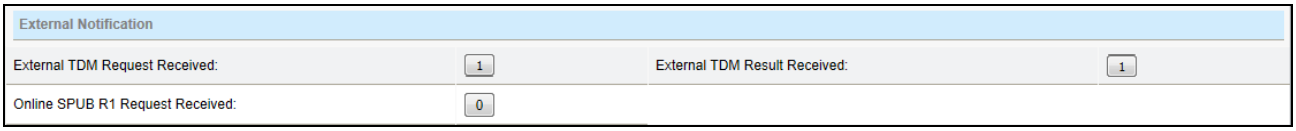


Figure 3.4.1-7 External Notification

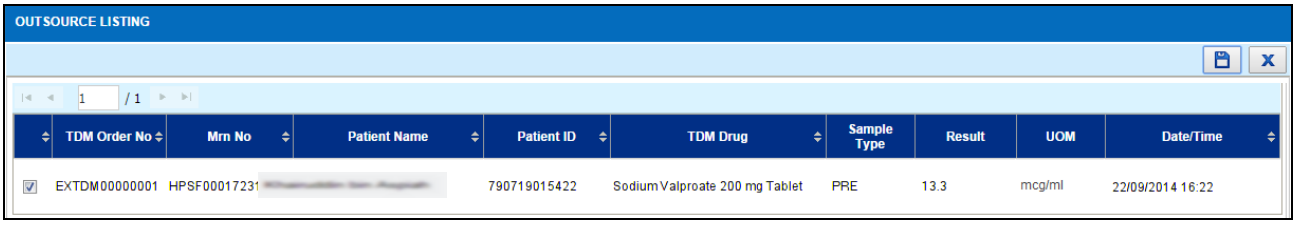


Figure 3.4.1-8 Outsource Listing

3.4.2 External TDM Offline

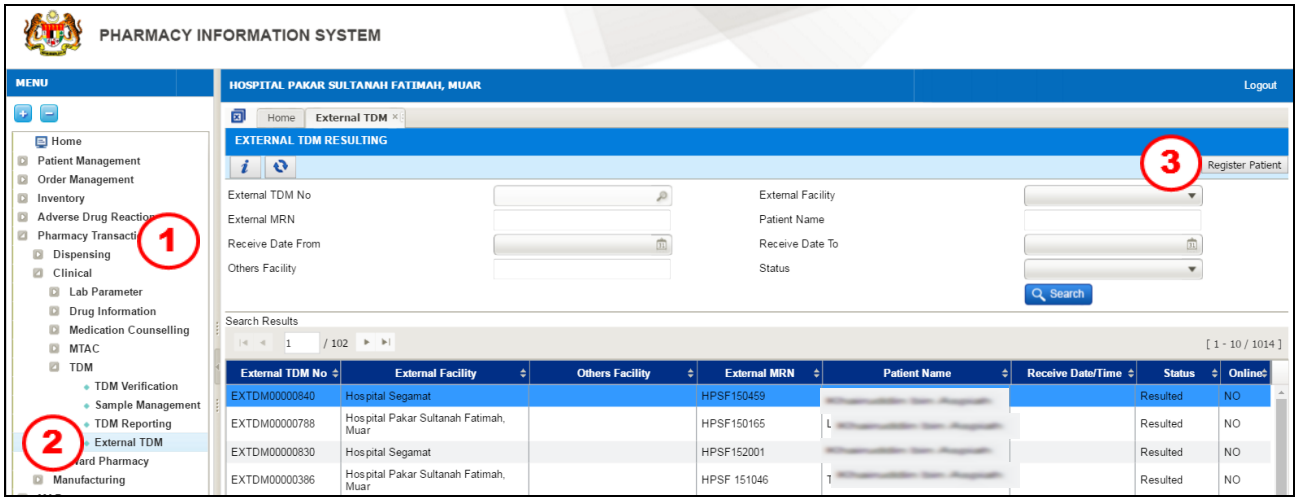


Figure 3.4.2-1 External TDM Listing Page

External TDM module is for user to record external TDM resulting (Outsource) via online and offline.
It is recorded offline if one of the facility used PhIS to perform TDM processes.

STEP 1
Click on 'Pharmacy Transaction' menu follow by 'Clinical' sub-menu

STEP 2
Click on 'TDM' and click on 'External TDM' function

STEP 3
Click on the Register Patient button to register external patient

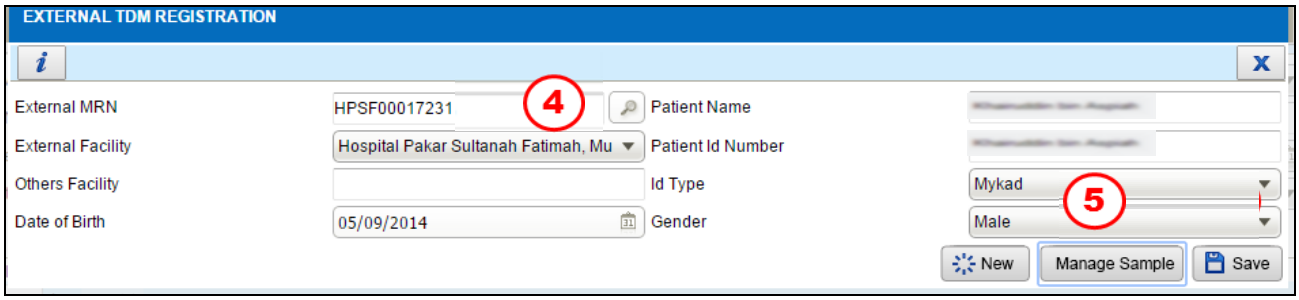


Figure 3.4.2-2 External TDM Registration

STEP 4

Enter details in the fields below:

a. External MRN
b. Patient Name
c. External Facility
d. Patient Id Number
e. Other Facility
   (If the sample come from private sector or facility which is not listed under MOH facilities)
f. Id Type

Note

Click on the External MRN button to search for registered patient and all fields will be automatically retrieved.

STEP 5

Click on the Manage Sample button and External TDM Resulting screen will be displayed as per Figure 3.4.2-3

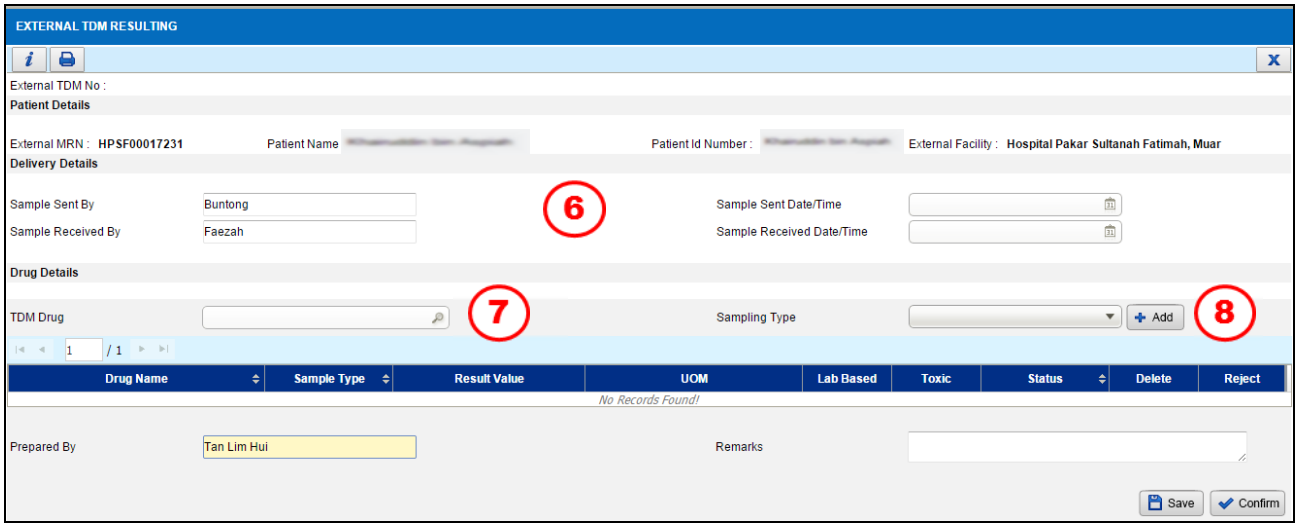


Figure 3.4.2-3 External TDM Resulting

STEP 6

Enter ***Delivery Details*** as below:

a. Sample Sent By
b. Sample Sent Date/Time
c. Sample Received By
d. Sample Received Date/Time

STEP 7

Click on the ***TDM Drug*** button to search for drug

STEP 8

Select ***Sampling Type*** from dropdown box:

- Pre
- Post
- Random

and click on the Add button to add the information

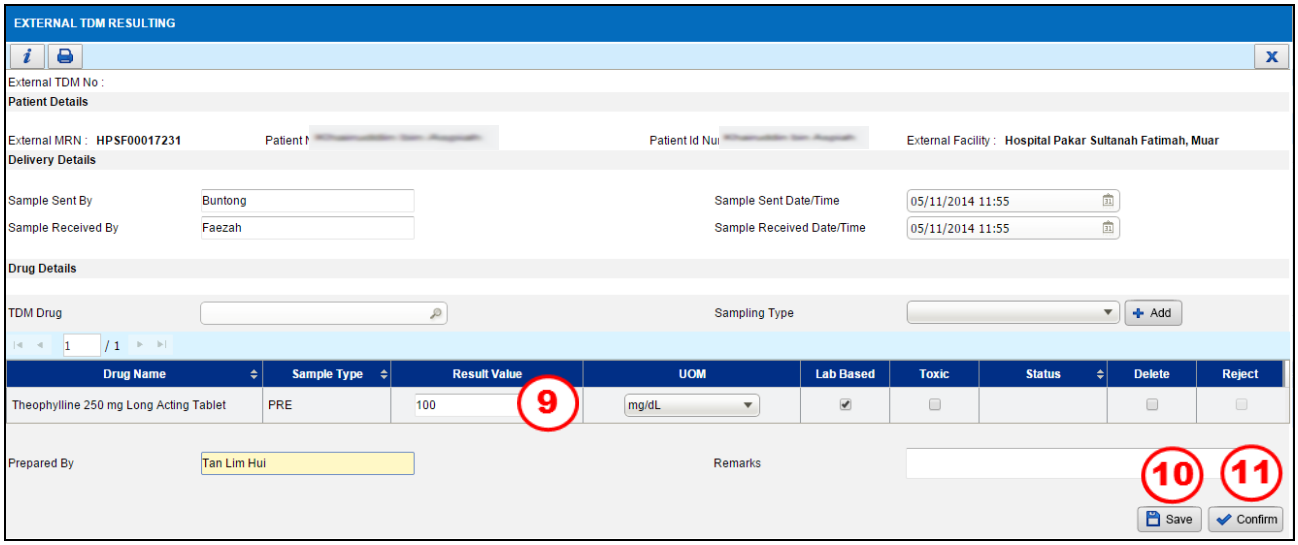


Figure 3.4.2-4 External TDM Resulting

STEP 9

Enter ***Result Value*** and select ***UOM*** from dropdown box:

- mcg/ml
- mg/dl/ml

Note

- *Select on ☐ **Lab Based** checkbox if TDM resulting process is done at a laboratory.*
- *Select on ☐ **Toxic** checkbox if TDM results show toxicity for selected patient.*
- *Select on ☐ **Reject** checkbox to reject sampling received.*
- *Select on ☐ **Delete** checkbox to delete TDM order.*
- *Enter **Remarks** if applicable.*

STEP 10

Click on the Save button to save external TDM resulting

STEP 11

Click on the Confirm button to confirm external TDM resulting

4.0 Acronyms

Abbreviation	Definition
PhIS	Pharmacy Information System
CPS	Clinical Pharmacy System
MOH	Ministry Of Health
TDM	Therapeutic Drug Monitoring

5.0 Links to Clinical Modules

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