



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

System Design Document (SDD)

Medication Therapy Adherence Clinic (MTAC)

Version	: 1.3
Document ID	: PhIS_CPS/SDD/MTAC



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**REVISION HISTORY**

Version No	Date of Release	Prepared by	Reviewed by	List of changes from Previous Version
0.1	05/03/2012	Hana Emi Husna bt Mat Said	Maxine Sijin (QA)	Initial 1 st draft
0.2	09/03/2012	Hana Emi Husna bt Mat Said	Shenoy (SME)	Review comments added
1.0	09/03/2012	Hana Emi Husna bt Mat Said	MOH	Review comments added
1.1	30/03/2012	Hana Emi Husna bt Mat Said	MOH	Review comments added
1.2	05/04/2012	Hana Emi Husna bt Mat Said	MOH	Review comments added
1.3	03/04/2018	Norlaileza bt Sidek	MOH	Updated based on version 1.7 release

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Date :		Date :	



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1. Introduction

Pharmaniaga Logistics Sdn. Bhd. executes software development, enhancement and maintenance projects for its clients. The term “project” is used to describe the full set of activities from the time the proposal is accepted and project initiation note or contract is signed to the time all the software and services are delivered according to the acceptance of the proposal/contract.

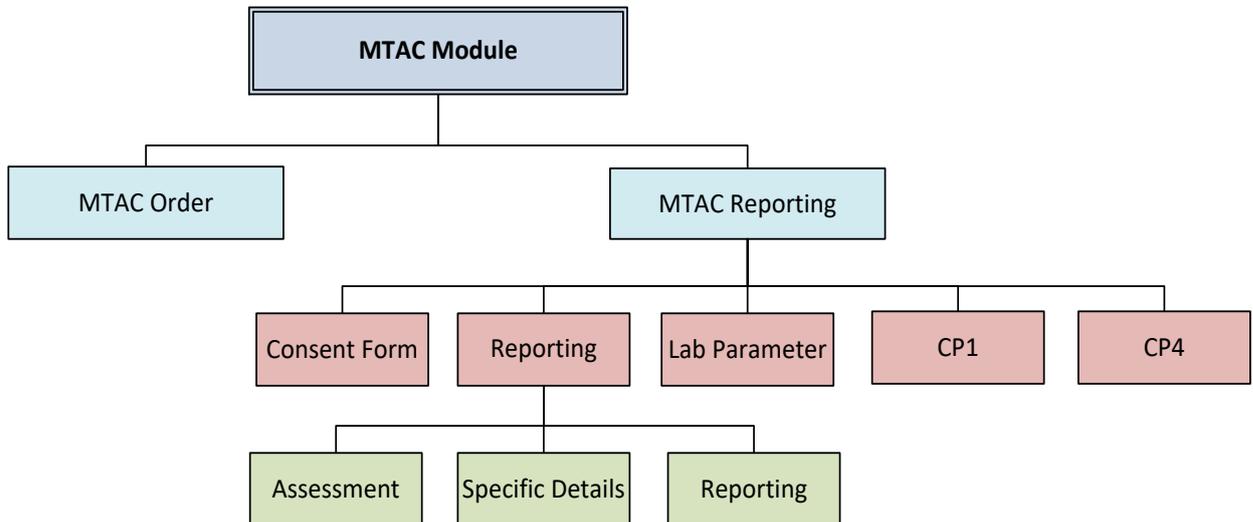
This process is to ensure both user requirements and software requirements of the projects developments are gathered appropriately from stakeholders and are documented in User Requirements Specification (URS) and System Design Documentation (SDD) specifically.

2. Purpose

The purpose of the document is to describe the purpose and functionality of the software product requested by client. This document outlines the project's details, requirements, interface, design issues, and components to ensure that each requirement has been met.

3. Detailed System Design

3.1 MTAC Overview



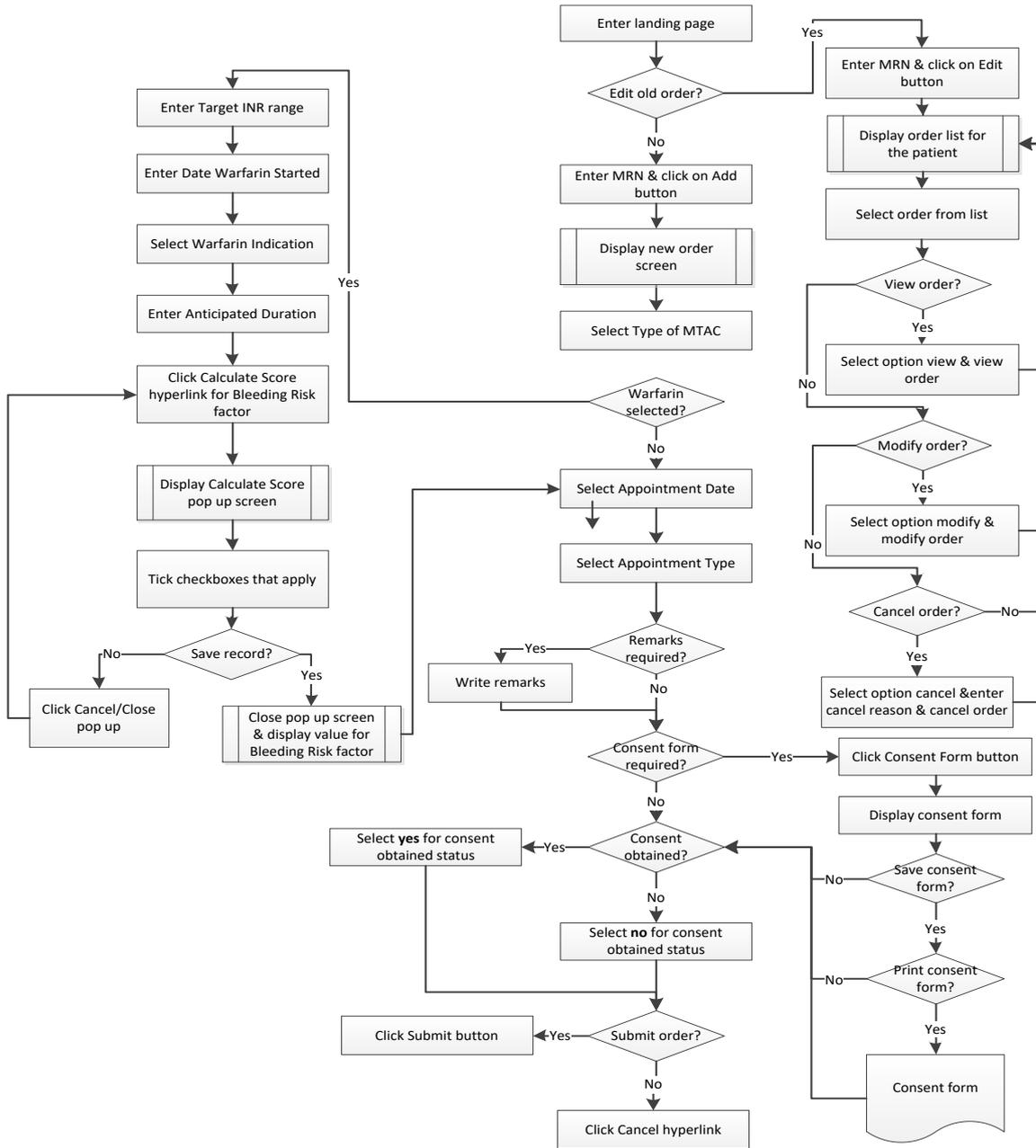
3.1.1 Block Diagram



3.1.2 Purpose

MTAC module allows user to schedule appointment for MTAC services for a patient and record the findings/ reporting details in the system.

3.1.3 Screen Navigation Diagram



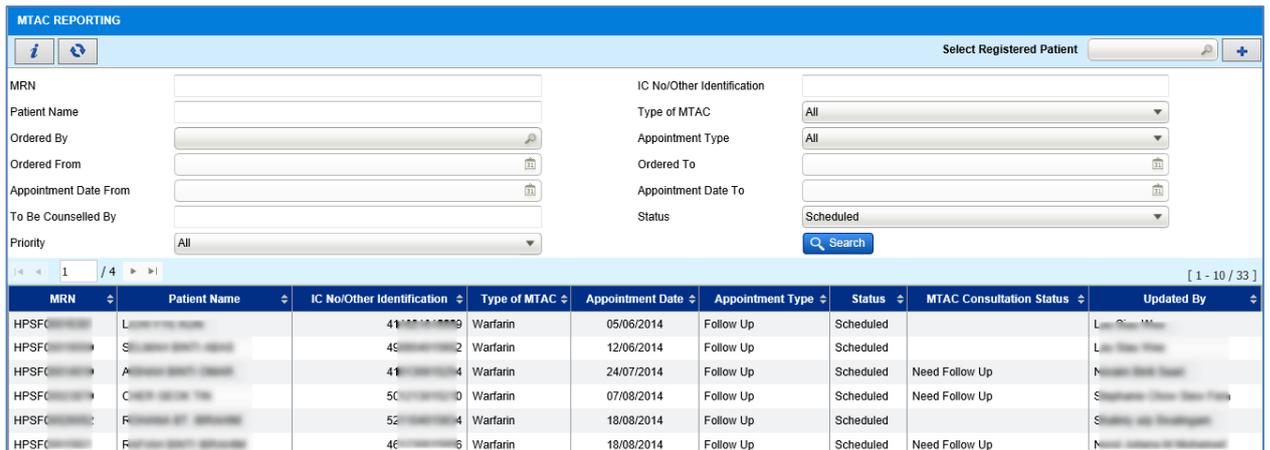
3.1.4 Detail Functionality and Screen

3.2 MTAC Listing

3.2.1 Screen Design

ID	MTAC.SD1
Description	To search existing MTAC scheduled/ reporting record

Diagram



The screenshot shows the 'MTAC REPORTING' interface. It includes a header with 'Select Registered Patient' and a search button. Below are various filters: MRN, Patient Name, Ordered By, Ordered From, Appointment Date From, To Be Counseled By, Priority, IC No/Other Identification, Type of MTAC, Appointment Type, Ordered To, Appointment Date To, and Status. A 'Search' button is located at the bottom right of the filter section. Below the filters is a table with the following columns: MRN, Patient Name, IC No/Other Identification, Type of MTAC, Appointment Date, Appointment Type, Status, MTAC Consultation Status, and Updated By. The table contains several rows of data, including patient names like 'L...', 'S...', 'A...', 'C...', 'F...', and 'F...' with corresponding dates and statuses.

MTAC.SD1 – MTAC Listing screen



The screenshot shows the 'Patient Search' dialog box. It has a title bar with a close button (X). The dialog contains input fields for 'Patient MRN', 'Patient Name', and 'IC No/Other Identification'. There is a 'Search' button and a refresh button. Below the input fields is a pagination bar showing '1 / 1'. At the bottom, there are three columns: 'Patient MRN', 'Patient Name', and 'IC No/Other Identification'. The text 'No Records Found!' is displayed in the center of the dialog.

MTAC.SD1 – Patient Search

Notes	<ul style="list-style-type: none"> • Click on search button to search for MTAC record • Double click on transaction record to open the record •
Cross References	PhIS_CPS_SDD_MTAC v1.2

3.2.2 Application Business Rules

No.	Name	Description
1.	Search Transaction	Click on the 'Search' button to search the existing record: <ol style="list-style-type: none"> By default filter record by Status = Scheduled

		<ul style="list-style-type: none"> ii. If user enters multiple search criteria, system will display the search results based on the specified criteria iii. If no criteria entered, system will display all transactions iv. System will display the records that match any keyword entered regardless of the letter type (uppercase or lowercase).
2.	View search result in listing page	<p>Columns in search result listing are displayed based on:</p> <ul style="list-style-type: none"> i. MRN: Display patient MRN No. ii. Patient Name: Display patient registered name. iii. IC No/ Other identification: Display patient IC No or Other identification no as registered in patient management screen. iv. Type of MTAC: Display type of MTAC as selected during MTAC Order. v. Appointment Date: Display appointment date selected during MTAC Order. vi. Appointment Type: Display appointment type selected during MTAC Order. vii. Status: Display value from 'Status' field in transaction screen. viii. MTAC Consultation Status: Display value from 'MTAC Consultation Status' field in MTAC reporting screen. ix. Updated By: Field will display all user (active and inactive) as per in Maintenance > Security > User Profile screen. Based on user login name.
3.	Select Registered Patient	<p>Click on the search icon to search registered patient using below criteria:</p> <ul style="list-style-type: none"> i. Patient MRN ii. Patient Name iii. IC No/Other Identification <p>Refer to diagram : <i>MTAC.SD1 – Patient Search</i></p>
4.	Create New Transaction	Click on the 'Create New Record (+)' button to create new transaction record.
5.	Refresh Listing	<p>Click on the 'Refresh' button to reset all search criteria:</p> <ul style="list-style-type: none"> i. MRN No. – Display as empty field ii. IC No/Other Identification – Display as empty field iii. Patient Name – Display as empty field iv. Type of MTAC – All v. Ordered By – Display as empty field vi. Appointment Type – All vii. Ordered From – Display as empty field viii. Ordered To – Display as empty field ix. Appointment Date From – Display as empty field



		<p>x. Appointment Date To – Display as empty field</p> <p>xi. To be Counselling By – Display as empty field</p> <p>xii. Status – Scheduled</p> <p>xiii. Priority – All</p> <p>Search results will display all records based on above reset search criteria.</p>
6.	User access	Pharmacist is allowed to view/create/edit/confirm record however limited to the given user access role.

3.2.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	MRN No.	User to enter free text value with maximum 100 characters.	No	Text field
2.	IC No/Other Identification	User to enter free text value with maximum 100 characters.	No	Text field
3.	Patient Name	User to enter free text value with maximum 100 characters.	No	Text field
4.	Type of MTAC	Default to 'All' however user can select specific status: <ul style="list-style-type: none"> All Follow Up Follow Up Reschedule New New Reschedule 	No	Drop down list
5.	Ordered By	User to enter free text value with maximum 100 characters.	No	Text field
6.	Appointment Type	Default to 'All' however user can select specific type: <ul style="list-style-type: none"> All Follow Up Follow Up Reschedule New New Reschedule 	No	Drop down list
7.	Ordered From	User to select date from the calendar. Click on the calendar icon to display the calendar.	No	Calendar
8.	Ordered To	User to select date from the calendar. Click on the	No	Calendar



		calendar icon to display the calendar.		
9.	Appointment Date From	User to select date from the calendar. Click on the calendar icon to display the calendar.	No	Calendar
10.	Appointment Date To	User to select date from the calendar. Click on the calendar icon to display the calendar.	No	Calendar
11.	To be Counselling By	User to enter free text value with maximum 100 characters.	No	Text field
12.	Status	Default to 'Scheduled' however user can select specific status: <ul style="list-style-type: none">• All• Scheduled• Cancelled• In progress• Completed Values are displayed from Reference Codes maintenance screen with domain = 'MTAC_STATUS_NEW'.	No	Drop down list
13.	Priority	Default to 'All' however user can select specific status: <ul style="list-style-type: none">• All• Routine• Urgent	No	Drop down list



3.3 MTAC Order

3.3.1 Screen Design

ID	MTAC.SD2
Description	<ul style="list-style-type: none"> This screen allows the user to create new MTAC order for the selected registered patient.

Diagram MTAC Order

i. MTAC order Screen

MTAC.SD2 – MTAC Order screen

ii. Search History

MTAC.SD2 – Search History

iii. Audit Trail

AUDIT TRAIL				
Change Date	Change Time	Original Appointment	New Appointment	Person
28/12/2017	6:19 PM	25/12/2017	27/12/2017	Tan Sing Chian

MTAC.SD2 – Audit Trail



iv. MTAC Order – Warfarin additional field

Type Of MTAC	Warfarin	Search History *	Appointment Date	29/12/2017	Audit Trail
Priority	Routine		Appointment Type		
To Be Counseled By			Remarks		
Target INR Range			Date Warfarin Started		
Warfarin Indication			Anticipated Duration		
Bleeding Risk Factor		0	Calculate Score		

MTAC.SD2 – MTAC Order – Warfarin

Notes	<ul style="list-style-type: none"> • MTAC order is required before user is able to proceed with MTAC reporting. • Click on 'Proceed to reporting' button to proceed with reporting screen
Cross References	PHIS_CPS_SDD_MTAC v1.2

3.3.2 Application Business Rules

No.	Name	Description
1.	Search History	<ul style="list-style-type: none"> - Search History is used to trace previous recorded MTAC order based on the selected MTAC Type. - Display previous MTAC record with status = Completed - Double click on the record to copy information from the selected record
2.	Audit Trail Hyperlink	<ul style="list-style-type: none"> - User can trace updated order record through audit trail hyperlink - Click on the hyperlink to open 'Audit Trail' listing screen - This Audit trail screen is for view purpose only - Listing consist of information as below: <ul style="list-style-type: none"> • Change Date • Change Time • Original Appointment • New Appointment • Person
3.	Save record	On click of Save button: <ol style="list-style-type: none"> Record status become 'Scheduled' Button 'Proceed to Reporting' will be active/ enable.
4.	Cancel record	User able to 'Cancel Request' once already save record but before send for approval. Status will update to 'Cancelled' after user cancel request. All fields will display as read-only.
5.	Reschedule Appointment	User able to 'reschedule appointment' once already save record but before proceed with reporting. Status will update to '

6.	Status	<ul style="list-style-type: none"> - Ordered – this is for an order that has been submitted and no reporting has been done yet. User can change the status to ‘cancelled’. On change of status from ‘ordered’ to ‘cancelled’, cancel reason field will be displayed which is mandatory to be filled before saving the record below the status combo box. - Cancelled – this is for a cancelled order. No further changes are allowed for cancelled order. - In progress – this is for an order that has saved report. No further changes are allowed for in progress order. - Completed – this is for an order that has confirmed report. No further changes are allowed for confirmed order.
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3.3.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Type of MTAC	This field shows in drop down value, the active MTAC types which has been set at each facility, Maintenance → MTAC Info → Availability checked	Yes	Drop down list
2.	Search History	<ul style="list-style-type: none"> - Search History is used to trace previous recorded MTAC order based on the selected MTAC Type. - Display previous MTAC record with status = Completed - Double click on the record to copy information from the selected record 	No	Searching field
3.	Appointment Date	<p>Calendar option with condition to allow user to set appointment backdated for 5 days</p> <p>For example; Todays date is 31/5/2016</p> <p>Appointment date should allow to select date from 26, 27, 28, 29 & 30/5/2016</p>	No	Calendar
4.	Priority	<p>This field shows the types of priority in a drop down combo box:</p> <ul style="list-style-type: none"> • Routine • Urgent 	Yes	Drop down list
5.	Appointment Type	<p>This field shows the types of appointment in a drop down combo box:</p> <ul style="list-style-type: none"> • New • Follow up 	No	Drop down list
6.	To be Counselling By	User to enter free text value with maximum 50 characters.	No	Text field
7.	Remarks	User to enter free text value with maximum 100 characters.	No	Text field



Additional fields for MTAC type = Warfarin				
<i>Refer to Diagram - MTAC.SD2 – MTAC Warfarin</i>				
8.	Target INR Range	User to enter free text value with maximum 20 characters.	No	Text field
9.	Date Warfarin Started	User to select date from the calendar. Click on the calendar icon to display the calendar.	No	Calendar
10.	Warfarin Indication	<p>This field shows type of Warfarin Indication in a drop down combo box:</p> <ul style="list-style-type: none"> • Arterial Embolism • Cerebrovascular Accident • Heart Valve Replacement – on selection of this value, a free-text field will be prompted that accepts 50 characters • Pulmonary Hypertension • Transient Ischaemic Attack • Atrial Fibrillation • Deep Vein Thrombosis – on selection of this value, a free-text field will be prompted that accepts 50 characters • Pulmonary Embolism • Coagulopathy – on selection of this value, a free-text field will be prompted that accepts 50 characters • Venous Thrombosis of other specific Vein • Other – on selection of this value, a free-text field will be prompted that accepts 50 characters 	No	Drop down list
11.	Anticipated Duration	User to enter free text value with maximum 50 characters.	No	Text field
12.	Bleeding Risk Factor	<ul style="list-style-type: none"> - This field shows a list of bleeding risk factors as below: <ul style="list-style-type: none"> • High Risk • Intermediate Risk • Low Risk - Value of Bleeding Risk Factor field is defaulted based on score range calculated from numbers of checkboxes ticked in Calculate score screen. Each ticked checkbox = 1 point. The range is defined as below: 	No	Text field



		<ul style="list-style-type: none"> • ≥ 3 points = High Risk • 1-2 points = Intermediate Risk • 0 point = Low Risk 		
13.	Calculate Score	<ul style="list-style-type: none"> - Calculate score hyperlink – prompts the Calculate score screen that contains the following: <ul style="list-style-type: none"> • Checkboxes of: <ul style="list-style-type: none"> ○ Hypertension ○ Impaired Renal function ○ Impaired Liver function ○ History of stroke ○ History of bleeding ○ Labile INRs ○ Elderly (≥ 65 years) ○ Drugs ○ Alcohol Consumption - Each ticked checkbox will be given 1 point - It is not mandatory to check the checkboxes. However, the user can also check one or more of the checkboxes which will affect the score for the Bleeding Risk Factor. 	No	Text field



3.4 MTAC Reporting Assessment

3.4.1 Screen Design

ID	MTAC.SD3
Description	This screen allow user to record New MTAC reporting or edit in progress MTAC reporting.

Diagram MTAC Reporting

i. MTAC Reporting – Assessment

MTAC.SD3 – MTAC Assessment

ii. MTAC Reporting



REPORTING	
Pharmacist Notes	Remarks
<input type="text"/>	<input type="text"/>
Understanding	Adherence score
<input type="text" value="0"/> % Calculate Score <small>2000 characters allowed</small>	<input type="text"/>
MTAC Consultation Status	
<input type="text"/>	
<input type="button" value="Save"/> <input type="button" value="Confirm"/>	

MTAC.SD3 – MTAC Reporting

Notes	<ol style="list-style-type: none"> MTAC reporting only can be done for patient with have active 'outpatient' visit and MTAC appointment is not future appointment (current and previous date only) The reporting screen will include the patient banner and various hyperlinks below the patient banner. The list of hyperlinks are: <ul style="list-style-type: none"> Counselling Material ADR Lab Parameter Counselling History MTAC History Demographic Pharmacist Notes Medication Profile Other Appointment This reporting screen shall divided into three sections as below: <ul style="list-style-type: none"> Assessment Specific Details (Depending on the MTAC Type) Reporting
Cross References	PHIS_CPS_SDD_MTAC v1.2

3.4.2 Application Business Rules

No.	Name	Description
1.	Consent form	<ol style="list-style-type: none"> To generate the consent form for the patient. Click on this button and the consent form screen will pop-up which the following fields will automatically be auto-captured: <ul style="list-style-type: none"> Patient name – capture from patient details ID No – capture from patient details MRN– capture from patient details Type of MTAC – capture from MTAC order Hospital name – capture from defined Hospital name in

		<p>Hospital and Clinic information in Store Maintenance</p> <ul style="list-style-type: none"> Pharmacist name – capture from login name <p>ii. To set the consent form is mandatory to be print, if the MTAC Info → Consent form is checked. This column should be maintain by HQ and facility can view only</p>
2.	Save record	<p>On click of Save button:</p> <p>i. Record status will be 'In progress' and user can edit the record</p> <p>ii. Only 'Remark' is allowed to be edited, other fields display as read-only</p> <p>iii. Button 'Send for Approval' will display</p> <p>iv. Button 'Cancel Request' will display</p> <p>v. Button 'Print' will display</p>
3.	Confirm record	<p>On click of Confirm button:</p> <p>i. Record status updated to 'Completed'</p> <p>ii. All fields will be read-only</p> <p>iii. Button 'Print' will display</p>
4.	No of MTAC visit	<p>i. First MTAC reporting created will default to no 1. Completed this reporting with MTAC consultation status: Need follow up, Next MTAC reporting with same MTAC type will increase MTAC visit no to 2.</p> <p>ii. If completed previous reporting with MTAC consultation status: Discharged , Next MTAC reporting with same MTAC type will default again to MTAC visit no to 1.</p>
5.	Order Details	<p>i. To call MTAC Order screen</p> <p>ii. If the record status scheduled, user still can edit/ cancel the order.</p> <p>iii. If the record status in progress/ completed this screen will be read only</p>

3.4.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
Social History				
1.	Smoking	<p>A value has to be selected from 4 available values:</p> <ul style="list-style-type: none"> Yes (If selected, shall allow to enter the Sticks/Day and Smoking For No Ex-Smoker Secondary smoker 	No	Text field
2.	Smoking -	Smoking -Sticks/Day only enable when smoking =	No	Text field



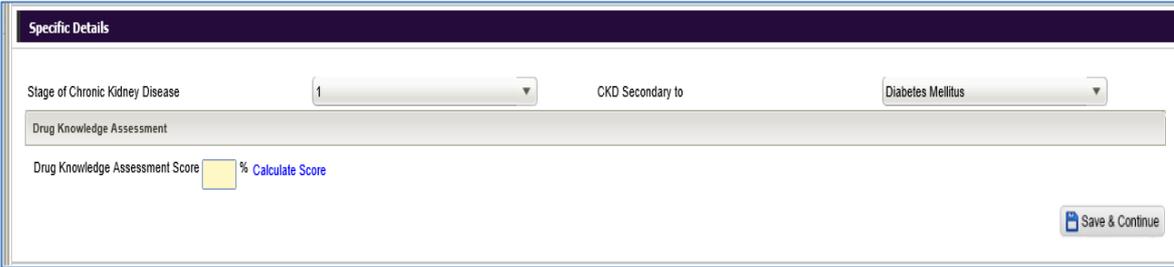
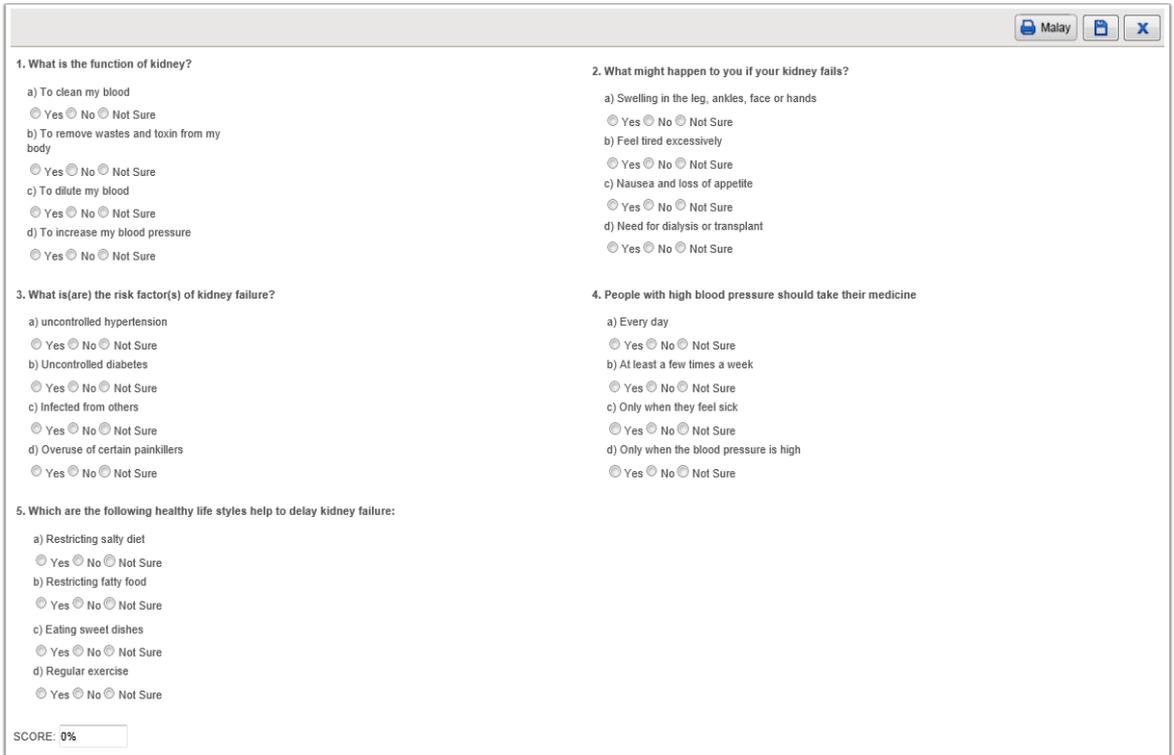
	Sticks/Day	'Yes' This field is free text with a capacity of 2 integer		
3.	Smoking -For	Smoking -Sticks/Day only enable when smoking = 'Yes' This field is free text with a capacity of 100 characters.	No	Text field
4.	Pregnancy	A value has to be selected from 2 available values, Yes /No	No	Text field
5.	Pregnancy- Trimester	Pregnancy-Trimester is to be selected from the drop down list. Dropdown will be populated from lookup table where domain = "TRIMSTER" i. Trimester - Value setup as 1,2 and 3	No	Text field
6.	Diet & Lifestyle	Diet & Lifestyle is free text with a capacity of 100 characters.	No	Text field
7.	Alcohol Drinking	A value has to be selected from 2 available values, Yes /No	No	Text field
8.	Alcohol Drinking - Amount	Alcohol Drinking - Amount only enable when smoking = 'Yes' This field is free text with a capacity of 100 characters.	No	Text field
9.	Drug Abuse	A value has to be selected from 2 available values, Yes /No	No	Text field
10.	Drug Abuse - Remarks	Drug Abuse - Remarks only enable when smoking = 'Yes' This field is free text with a capacity of 100 characters.	No	Text field
11.	Education Level	Education Level auto displayed based on patient registration data. Field value cannot be edited.	No	Read-only
Family History				
12.	Marital Status	Marital Status Level auto displayed based on patient registration data. Field value cannot be edited.	No	Read-only
13.	No.of Children	No.of Children is to be entered in the text box. Maximum of 2 integer number.	No	Text field
14.	Lives With	Drop-down combo box with the following values: <ul style="list-style-type: none"> • Alone • Family members • Nursing home 	No	Drop down list
15.	Family History of Illness	Family History of Illness is to be entered in the text box. Maximum of 100 characters capacity	No	Text field
Medical History				
16.	Co-morbidity	<ul style="list-style-type: none"> i. Drop down menu with History field (free text 500 characters) ii. The drop down value as below: 	No	Drop down list



		<ul style="list-style-type: none"> • Hypertension • Diabetes Mellitus • Tuberculosis • AF • Asthma • Hepatitis B • Hepatitis C • Heart Failure • ESRD • COPD • RVD • Others <p>iii. Shall allow to add multiple records</p>		
17.	Surgical History	<p>Surgical history – radio-button selection is provided. One of the following values has to be selected:</p> <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity will be provided for the user to input more information • No 	No	Text field
18.	Diagnostic Test	User can field patient diagnostic test in free text field (free text 2000 characters)	No	Text field
19.	Past Medication History	This segment displays read-only information of the past medication history that has been entered in CP1 (if any).		

3.5 MTAC Reporting – Specific Detail Section (Chronic Kidney Disease)

3.5.1 Screen Design

ID	MTAC.SD4
Description	Specific Details Chronic Kidney Disease
Diagram	
1) Main	
	
2) Drug Knowledge Assessment Score English	
On click of Calculate Score Hyperlink :	
	
3) Drug Knowledge Assessment Score Malay	



<p>English [Save] [Close]</p> <p>1. Apakah fungsi buah pinggang anda?</p> <p>a) Untuk membersihkan darah <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Menyingkirkan bahan buangan dan toksik daripada badan <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Untuk mencairkan darah <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Meningkatkan lekatan darah <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>2. Apakah yang akan terjadi jika buah pinggang anda gagal berfungsi?</p> <p>a) Kaki, buku lali, muka atau tangan menjadi bengkak <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Kelelahan yang berlebihan <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Loya dan hilang selera makan <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Perlu menjalani dialisis atau pemindahan organ <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>3. Apakah faktor-faktor yang menyumbang kepada kegagalan buah pinggang?</p> <p>a) Penyakit darah tinggi yang tidak terkawal <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Penyakit kencing manis yang tidak terkawal <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Berjangkit daripada orang lain <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Penggunaan secara berlebihan ubat tahan sakit yang tertentu <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>4. Pesakit darah tinggi perlu mengambil ubat-ubatan pada</p> <p>a) Setiap hari <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Sekurang-kurangnya beberapa kali dalam seminggu <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Apabila berasa tidak sihat sahaja <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Hanya apabila tekanan darah menjadi tinggi <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>5. Berikut merupakan gaya hidup yang boleh melambatkan kegagalan fungsi buah pinggang:</p> <p>a) Kurangkan pengambilan makanan yang masin <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Kurangkan pengambilan makanan yang berlemak <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Menggemari makanan yang manis <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Mengamalkan senaman <input type="radio"/> Ya <input checked="" type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>SCORE: 30%</p>	
Notes	<ul style="list-style-type: none"> Click on save button to save record
Cross References	None

3.5.2 Application Business Rules

None

3.5.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
Specific Details				
1.	Stage of Chronic Kidney disease	Stage of the Chronic Kidney Disease. User will be required to select a value from a drop-down field with the following values: <ul style="list-style-type: none"> 1 2 3a 3b 4 5 	No	Drop down list
2.	CKD Secondary To	CKD Secondary – a drop-down combo box which contains the following for selection: <ul style="list-style-type: none"> Hypertension 	No	Drop down list



		<ul style="list-style-type: none"> • Diabetes Mellitus • SLE • Unknown 		
3.	Drug Knowledge Assessment Score	Under this segment, system will display the Drug Knowledge Assessment Score in % unit based on the calculated values from marks obtained upon answering questionnaires in the Calculate score hyperlink. When the Calculate score hyperlink is clicked, the system will display the questionnaires in Drug Knowledge Assessment form with answers in radio-button options of 'Yes', 'No' and 'Not sure' for each of the question in a pop up screen. Each question and answer is displayed in English and Malay. The questions and point score for each question is shown as table below:	No	Text field
Drug Knowledge Assessment Score Details				
1.	Function of kidney	User has to select the following answer : a) To clean my blood Yes: 1, No: 0, Not sure: 0 b) To remove wastes and toxin from my body Yes: 1, No: 0, Not sure: 0 c) To dilute my blood Yes: 1, No: 0, Not sure: 0 d) To increase my blood pressure Yes: 1, No: 0, Not sure: 0 Remarks :0 and 1 indicate point	No	Radio button
2.	Happen to you if your kidney fails	User has to select the following answer : a) Swelling in the leg, ankles, face or hands Yes: 1, No: 0, Not sure: 0 b) Feel tired excessively Yes: 1, No: 0, Not sure: 0 c) Nausea and loss of appetite Yes: 1, No: 0, Not sure: 0 d) Need for dialysis or transplant Yes: 1, No: 0, Not sure: 0 Remarks :0 and 1 indicate point	No	Radio button
3.	Risk factor(s) of kidney failure?	User has to select the following answer : a) Uncontrolled hypertension Yes: 1, No: 0, Not sure: 0 b) Uncontrolled diabetes Yes: 1, No: 0, Not sure: 0 c) Infected from others Yes: 1, No: 0, Not sure: 0 d) Overuse of certain painkillers Yes: 1, No: 0, Not sure: 0 Remarks :0 and 1 indicate point	No	Radio button
4.	Person with high blood pressure should take	User has to select the following answer : a) Every day Yes: 1, No: 0, Not sure: 0 b) At least a few times a week	No	Radio button



	their medicine	<p>Yes: 1, No: 0, Not sure: 0</p> <p>c) Only when they feel sick Yes: 1, No: 0, Not sure: 0</p> <p>d) Only when the blood pressure is high Yes: 1, No: 0, Not sure: 0</p> <p>Remarks :0 and 1 indicate point</p>		
5.	Healthy life styles help to delay kidney failure	<p>User has to select the following answer :</p> <p>a) Restricting salty diet Yes: 1, No: 0, Not sure: 0</p> <p>b) Restricting fatty food Yes: 1, No: 0, Not sure: 0</p> <p>c) Eating sweet dishes Yes: 1, No: 0, Not sure: 0</p> <p>d) Regular exercise Yes: 1, No: 0, Not sure: 0</p> <p>Remarks :0 and 1 indicate point</p>	No	Radio button



3.6 MTAC Reporting – Specific Detail Section (Warfarin)

3.6.1 Screen Design

ID	MTAC.SD5
Description	Specific Details Warfarin
Diagram	
Notes	<ul style="list-style-type: none"> • There will be a Subjective Information segment to be completed by the user • Click on save button to save record
Cross References	None

3.6.2 Application Business Rules

None

3.6.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
Subjective Information				
1.	Signs of bleeding	Signs of bleeding – radio button selection is provided. One of the following values has to be selected: <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity will be provided to capture additional information. • No 	No	Radio button



2.	Signs of thrombosis	Signs of thrombosis – radio-button selections are provided. One of the following values has to be selected: <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity will be provided to capture additional information. • No 	No	Radio button
3.	Correct dose taken	Correct dose taken sub-header. In this section, radio button selection is provided for each day of the week (Monday to Sunday) with the following values: <ul style="list-style-type: none"> • Yes • No And a textbox with the unit of measure ‘mg’ will be provided for each day of the week to capture the daily administered dosage. The textboxes accept numeric value with one decimal point.	No	Radio button
4.	Total Weekly dose	Total dose – display read-only auto-calculated of total amount with the unit measure ‘mg’ for the administered dosages above.	No	Read Only
5.	Missed doses in past 1 week	Missed doses in past 1 week – radio-button selections are provided. One of the following values has to be selected: <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity is provided to capture additional information. • No 	No	Radio button
6.	Medication changes	Medication changes – radio-button selections are provided. One of the following values has to be selected: <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity is provided to capture additional information. • No 	No	Radio button
7.	Changes in Medical Status/ Illness	Changes in Medical Status/Illness – radio-button selections are provided. One of the following values has to be selected: <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity is provided to capture additional information. • No 	No	Radio button
8.	Other complains/patient’s plan	Other complains/patient’s plan – radio-button selections are provided. One of the following values has to be selected: <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity is provided to capture additional information • No 	No	Radio button
9.	Changes in	Changes in Physical Activity – radio-button	No	Radio



	Physical Activity	<p>selections are provided. One of the following values has to be selected:</p> <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity is provided to capture additional information • No 		button
10.	Diet/ Herbal/ Supplement Change	<p>Diet/ Herbal/ Supplement Change – radio-button selections are provided. One of the following values has to be selected:</p> <ul style="list-style-type: none"> • Yes – a free-text field of 100 characters capacity is provided to capture additional information • No 	No	Radio button
11.	Target INR Range	This field should captured 'Target INR Range' value entered in MTAC Order screen	No	Read Only
12.	Date Warfarin Started	This field should captured 'Date Warfarin Started' value entered in MTAC Order screen	No	Read Only
13.	Warfarin Indication	This field should captured 'Warfarin Indication ' value entered in MTAC Order screen	No	Read Only
14.	Anticipated Duration	This field should captured 'Anticipated Duration' value entered in MTAC Order screen	No	Read Only
15.	Bleeding Risk Factor	This field should captured 'Bleeding Risk Factor ' value entered in MTAC Order screen	No	Read Only

3.7 MTAC Reporting – Specific Detail Section (Diabetes Mellitus)

3.7.1 Screen Design

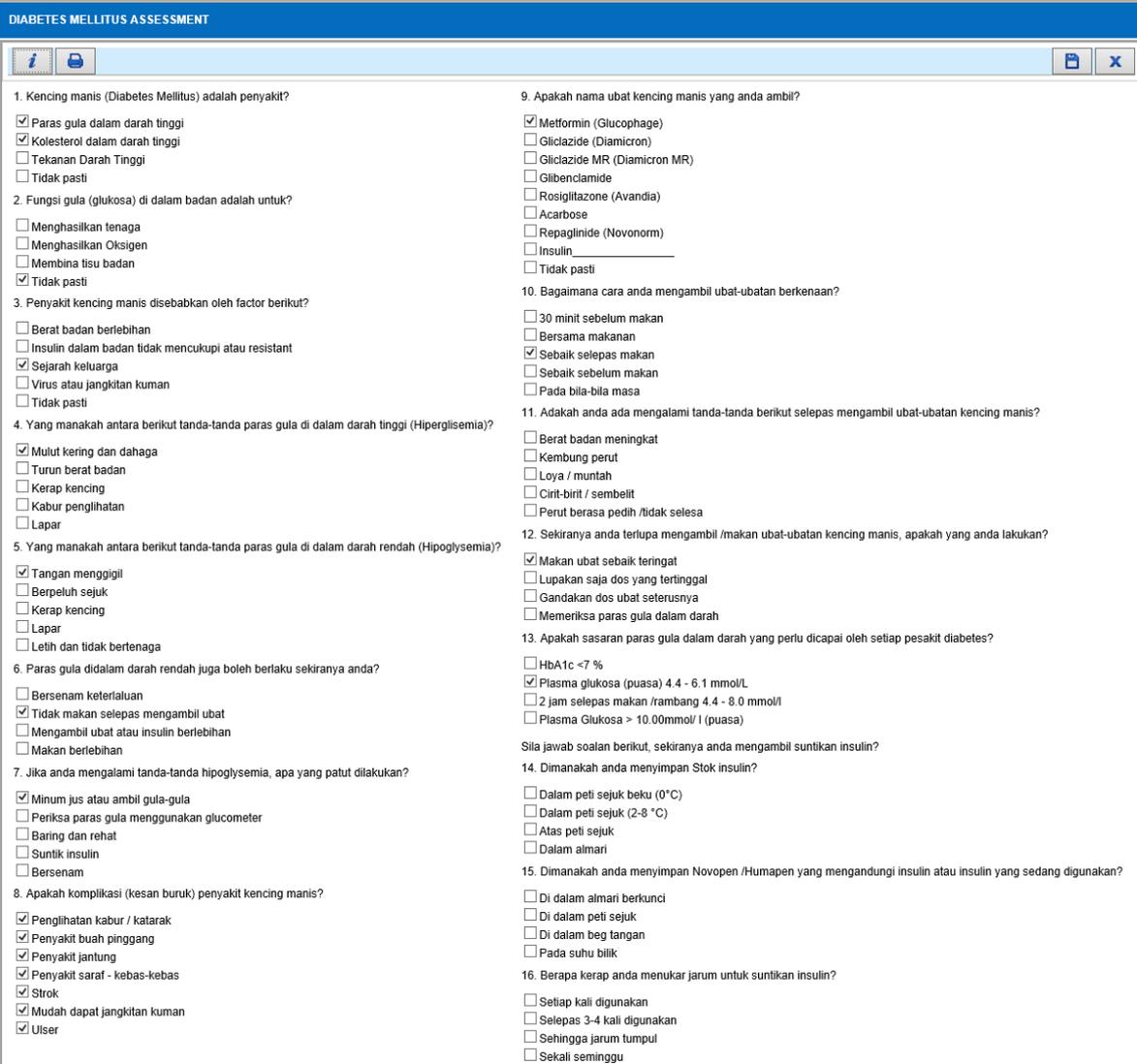
ID	MTAC.SD6
Description	Specific Details Diabetes Mellitus

Diagram

i. Specific Details



ii. Borang Penilaian Pesakit –Diabetes Mellitus



DIABETES MELLITUS ASSESSMENT

1. Kencing manis (Diabetes Mellitus) adalah penyakit?

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

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

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

3. Penyakit kencing manis disebabkan oleh factor berikut?

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

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

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

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

- Tangan menggigil
- Berpeluh sejuk
- Kerap kencing
- Lapar
- Letih 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 hipoglysemia, apa yang patut dilakukan?

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

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

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

9. Apakah nama ubat kencing manis yang anda ambil?

- Metformin (Glucophage)
- Gliclazide (Diamicron)
- Gliclazide MR (Diamicron 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
- Cirit-birit / sembelit
- Perut berasa pedih /tidak selesa

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

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

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

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

Sila jawab soalan berikut, sekiranya anda mengambil suntikan insulin?

14. Dimanakah anda menyimpan Stok insulin?

- Dalam peti sejuk beku (0°C)
- Dalam peti sejuk (2-8 °C)
- 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



Notes	Click on Assessment Form Diabetes Mellitus to open pdf assessment of Diabetes Mellitus
Cross References	None

3.7.2 Application Business Rules

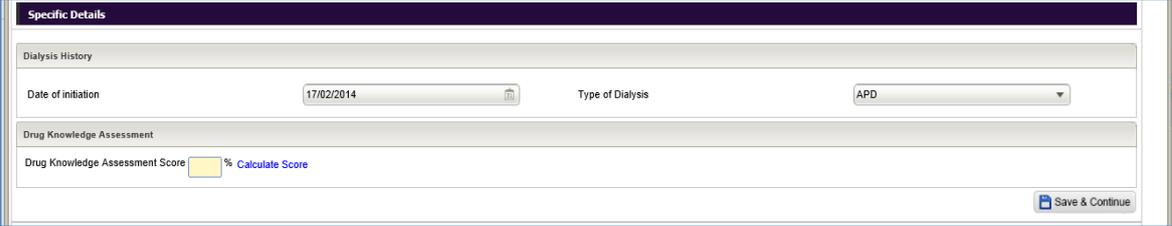
No.	Name	Description
1.	Diabetes Mellitus Assessment	Diabetes Mellitus Assessment shall can be printed when do reporting

3.7.3 Input Validation Rules

None

3.8 MTAC Reporting – Specific Detail Section (Dialysis)

3.8.1 Screen Design

ID	MTAC.SD7
Description	Specific Details Dialysis
<p>Diagram</p> <p>1) Main</p>  <p>2) Drug Knowledge Assessment Score in English</p> <p>On click of Calculate Score Hyperlink</p>	



Drug Knowledge Assessment Form

Malay

1. Why do I have to do dialysis?

- 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

2. What is(are) the appropriate way(s) to take iron tablet?

- a) Take on empty stomach (half an hour before food or 2 hours after food)
 Yes No Not Sure
- b) Take after meal, if I have gastric or stomach discomfort when taken on empty stomach
 Yes No Not Sure
- c) Take together with food
 Yes No Not Sure
- d) It should be separated from calcium carbonate for 1-2 hours
 Yes No Not Sure

3. What is(are) the appropriate way to take calcium carbonate?

- a) Swallow 1/2 hour after meal
 Yes No Not Sure
- b) Chew/Sprinkle with food
 Yes No Not Sure
- c) Can be taken before or after meal
 Yes No Not Sure
- d) Omit it if I skip my meal and adjust accordingly later on
 Yes No Not Sure

4. What is(are) function(s) of calcium carbonate?

- a) As a calcium supplement
 Yes No Not Sure
- b) As iron supplement
 Yes No Not Sure
- c) To control potassium level
 Yes No Not Sure
- d) To control phosphate level
 Yes No Not Sure

5. What do you usually do when you MISSED a dose(S)?

- 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

SCORE: 0

3) Drug Knowledge Assessment Score in Malay



Drug Knowledge Assessment Form	
<input type="button" value="English"/> <input type="button" value="Save"/> <input type="button" value="X"/>	
<p>1. Mengapa saya perlu menjalani dialysis?</p> <p>a) Untuk membersihkan darah saya <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Menyingkirkan bahan buangan dan toksik daripada badan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Untuk mencairkan darah <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Untuk meningkatkan tekanan darah <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p>	<p>2. Apakah cara terbaik pengambilan zat besi?</p> <p>a) Ambil semasa perut kosong (setengah jam sebelum atau 2 jam selepas makan) <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Ambil selepas makan, jika saya ada gastrik/sakit perut <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Ambil bersama makanan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Jarakkan 1-2 jam daripada pengambilan calcium carbonate <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p>
<p>3. Apakah cara terbaik pengambilan calcium carbonate?</p> <p>a) Telan setengah jam selepas makan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Kunyah atau labur di atas makanan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Boleh diambil sebelum atau selepas makan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Tinggalkan dos ubat jika anda tidak mengambil makanan dan aturkan pengambilan dos ubat kemudian <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p>	<p>4. Apakah fungsi calcium carbonate?</p> <p>a) Sebagai supplemen calcium <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Sebagai suplemen zat besi <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Untuk mengawal paras potassium <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>d) Untuk mengawal paras fosfat <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p>
<p>5. Apa yang akan anda lakukan sekiranya anda TERLUPA untuk mengambil ubat anda?</p> <p>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. <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>b) Membiarkan sahaja dan mengambilnya pada waktu dos seterusnya. <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p> <p>c) Menggandakan dos <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti</p>	
SCORE: 0	
Notes	Click on save button to save the record
Cross References	None

3.8.2 Application Business Rules

None



3.8.3 Input Validation Rules

No	Name	Description	Mandatory	Format
1.	Date of initiation	Date field with calendar component. Date to be entered in dd/mm/yyyy format	No	Calendar
2.	Type of Dialysis	User has to select one out of the following from the dropdown. The values are populated from System Parameter, category-Dialysis Type. <ul style="list-style-type: none">• HD• CAPD• APD	No	Drop Down list
3.	Drug Knowledge Assessment Score	Score calculated based on drug knowledge assessment for dialysis $Score (\%) = (Total\ points / No.\ of\ Questions\ asked) \times 100$	No	Text field



3.9 MTAC Reporting – Specific Detail Section (RVD)

3.9.1 Screen Design

ID	MTAC.SD8
Description	Specific Details RVD
Diagram	
Notes	Click on save & continue button to save the record and proceed with reporting section
Cross References	None

3.9.2 Application Business Rules

None

3.9.3 Input Validation Rules

No	Name	Description	Mandatory	Format
1.	Mode of Transmission	Mode of Transmission information to be entered. User will be provided with checkboxes of below: <ul style="list-style-type: none"> Hetero MSM IVDU 	No	Drop Down list



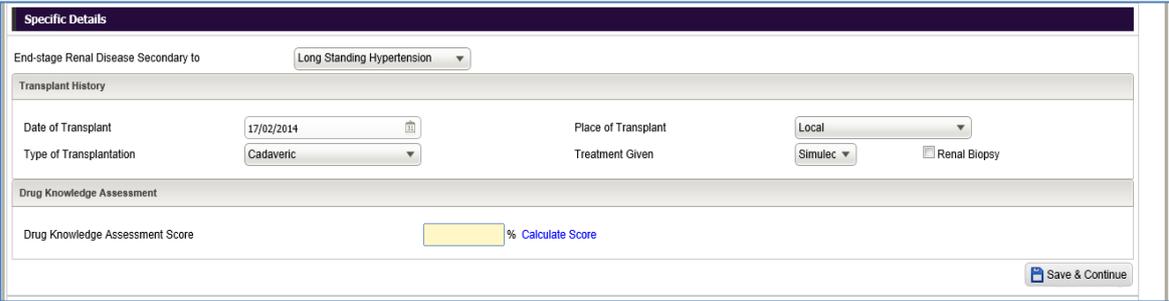
		<ul style="list-style-type: none"> • Blood • Unknown 		
2.	CD4 Nadir	User can enter CD4 Nadir value in the CD4 Nadir field which accepts numeric value only.	No	Text field
3.	Reason(s) for missing/delaying doses	Reason(s) for missing/delaying doses – this segment will contain the following checkboxes: <ul style="list-style-type: none"> • Forgot • Too many pills • Too busy • Felt sick • Felt Well • To avoid side-effects • Financial problem • Not keen to continue • Wake up late • Timing not suitable • Run out of pills • Others - a free-text field of 50 characters capacity is provided to capture additional information 	No	Drop Down list
4.	Side effect(s) experienced	Side effect(s) experienced – this segment will contain the following checkboxes: <ul style="list-style-type: none"> • None • Nausea/vomiting/diarrhea • Rash/pigmentation • Headache/dizziness • Peripheral neuropathy • Anemia • Lipodystrophy/Lipoatrophy • Others - a free-text field of 50 characters capacity is provided to capture additional information 	No	Drop Down list
5.	Side effect management(s)	Side effect management(s) – this segment will contain the following checkboxes: <ul style="list-style-type: none"> • Medication • Non-medication • Change drug • Others - a free-text field of 50 characters capacity is provided to capture additional information. • Pharmacist plan free-text field 	No	Drop Down list
Anti-Retroviral Therapy (current) doses				
6.	Regimen	Regimen – a drop-down combo box with the following values for selection: <ul style="list-style-type: none"> • 1st regime • 2nd regime • 3rd regime • 4th regime 	No	Drop Down list



		<ul style="list-style-type: none">• 5th regime• Salvage• Palliative		
7.	Source	Source – a drop-down combo-box with the following values for selection: <ul style="list-style-type: none">• Hospital• NGO• Baitulmal• Charity fund• Self• UNHCR• Others - a free-text field of 50 characters capacity is provided to capture additional information	No	Drop Down list

3.10 MTAC Reporting – Specific Detail Section (Renal Transplant)

3.10.1 Screen Design

ID	MTAC.SD9
Description	Specific Details Renal Transplant
<p>Diagram</p> <p>1) Main</p>  <p>2) Drug Knowledge Assessment Score English</p> <p>On click of Calculate Score Hyperlink:</p>	



Drug Knowledge Assessment Form

Malay

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:

3) Drug Knowledge Assessment Score Malay



Drug Knowledge Assessment Form	
English	
1. Apakah yang dimaksudkan dengan ubat immunosupresi? a) Ubat yang merendahkan daya pertahanan tubuh <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti b) Ubat yang menghalang rejeksi organ transplan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti c) Ubat yang menggalakkan pembentukan sel organ transplan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti	2. Kenapa anda perlu mengambil ubat immunosupresi? a) Untuk melindungi diri daripada jangkitan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti b) Untuk menghalang penolakan organ tranplans <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti c) Memanjangkan hayat organ tranplans <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti
3. Bagaimana saya harus mengambil ubat immunosupresi? a) Selepas makan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti b) Sebelum makan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti c) Kunyah bersama makanan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti	4. Bagaimanakah cara penyimpanan ubat immunosupresi yang betul? a) Simpan di dalam peti sejuk/ais <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti b) Simpan di dalam kenderaan untuk jangka masa yang lama <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti c) Simpan di dalam bekas kedap udara, kering dan jauh dari cahaya matahari <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti
5. Mengapakah anda perlu menjalani ujian darah berkala semasa menerima rawatan immunosupresi? a) Untuk mengesan jangkitan sekiranya ada <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti b) Untuk memeriksa fungsi organ transplan <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti c) Untuk memeriksa kepekatan ubat immunosupresi dalam darah <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti	6. Apa yang akan anda lakukan sekiranya anda TERLUPA untuk mengambil ubat immunosupresi? a) Mengambilnya sebaik sahaja teringat. Tetapi, jika masanya telah hampir dengan masa dos seterusnya, saya akan tinggalkan dos tersebut dan ambil ubat pada dos yang seterusnya <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti b) Membiarkan sahaja dan mengambil pada waktu dos seterusnya <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti c) Menggandakan dos <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti
7. Apakah yang akan anda lakukan jika anda mengalami kesan-kesan sampingan ketika mengambil ubat immunosupresi? a) Berhenti mengambil ubat tanpa memberitahu doktor/pegawai farmasi <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti b) Berhenti mengambil ubat dan terus berjumpa doktor <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti c) Mengambil ubat lain untuk mengubatinnya tanpa pengetahuan doktor/pegawai farmasi <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti	8. Apakah yang akan anda lakukan jika anda mahu mengambil ubat tradisional atau ubat suplemen? a) Memberitahu doktor/ pegawai farmasi sebelum mengambil ubat tersebut <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti b) Mengambilnya bersama ubat immunosupresi tanpa pengetahuan doktor/pegawai farmasi <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti c) Mengambil ubat tersebut dan berhenti mengambil ubat immunosupresi <input type="radio"/> Ya <input type="radio"/> Tidak <input type="radio"/> Tidak Pasti
SCORE: <input type="text" value="0"/>	
Notes	Click on save button to save the record
Cross References	None

3.10.2 Application Business Rules

None

3.10.3 Input Validation Rules

No	Name	Description	Mandatory	Format
1.	End Stage Renal Disease Secondary To	User has to select one out of the following from the dropdown. The values are populated from System Parameter, category-Renal Disease. <ul style="list-style-type: none"> • Long standing hypertension • Diabetic nephropathy • Lupus Nephritis • Unknown 	No	Drop Down List
2.	Date of Transplant	Date field with calendar component. Date to be entered in dd/mm/yyyy format	No	Calendar
3.	Place of Transplant	User has to select one out of the following from the dropdown. The values are populated from System Parameter, category-place of transplant. <ul style="list-style-type: none"> • Local • Overseas 	No	Drop Down List
4.	Type of Transplantation	User has to select one out of the following from the dropdown. The values are populated from System Parameter, category-Transplant Type. <ul style="list-style-type: none"> • Cadaveric • Living Related • Living non related 	No	Drop Down List
5.	Treatment Required	User has to select one out of the following from the dropdown. The values are populated from System Parameter, category-Renal treatment. <ul style="list-style-type: none"> • Simulect • OKT3 • Anti thymocyte 	No	Drop Down List
6.	Renal Biopsy	Checkbox provided	No	Check box
7.	Drug Knowledge Assessment Score	Score calculated based on drug knowledge assessment for renal transplant $Score (\%) = (Total\ points / No.\ of\ Questions\ asked) \times 100$	No	Others
Drug Knowledge Assessment				
1.	Immunosuppressant medicines means	User has to select the following answer : <ol style="list-style-type: none"> Medicines that lowers the body immune system Yes: 1, No: 0, Not sure: 0 Medicines that prevent rejection of the transplanted organ Yes: 1, No: 0, Not sure: 0 Medicines that promotes graft cell production Yes: 1, No: 0, Not sure: 0 Remarks :0 and 1 indicate point	No	Others



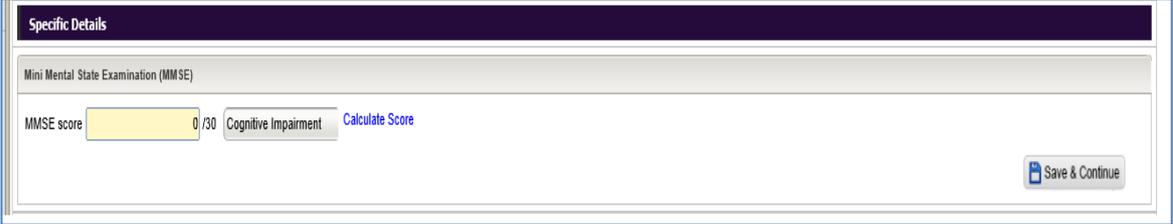
2.	Reason to take immunosuppressant	<p>User has to select the following answer :</p> <p>a) To protect myself from infections Yes: 1, No: 0, Not sure: 0</p> <p>b) To prevent rejection of my newly transplanted organ Yes: 1, No: 0, Not sure: 0</p> <p>c) To prolong the life of my newly transplanted organ Yes: 1, No: 0, Not sure: 0</p> <p>Remarks :0 and 1 indicate point</p>	No	Others
3.	How do I take the immunosuppressant	<p>User has to select the following answer :</p> <p>a) After meal Yes: 1, No: 0, Not sure: 0</p> <p>b) Before meal Yes: 1, No: 0, Not sure: 0</p> <p>c) Chew/Swallow with food Yes: 1, No: 0, Not sure: 0</p> <p>Remarks :0 and 1 indicate point</p>	No	Others
4.	Correct way to keep immunosuppressant	<p>User has to select the following answer :</p> <p>a) Keep in fridge Yes: 1, No: 0, Not sure: 0</p> <p>b) Keep in a car for long time Yes: 1, No: 0, Not sure: 0</p> <p>c) Keep in an airtight container, at a dry place away from direct sunlight Yes: 1, No: 0, Not sure: 0</p> <p>Remarks :0 and 1 indicate point</p>	No	Others
5.	Why regular blood tests?	<p>User has to select the following answer :</p> <p>a) To check the presence of infections Yes: 1, No: 0, Not sure: 0</p> <p>b) To check the function of the transplanted organ Yes: 1, No: 0, Not sure: 0</p> <p>c) To check the concentration of immunosuppressant in the blood Yes: 1, No: 0, Not sure: 0</p> <p>Remarks :0 and 1 indicate point</p>	No	Others
6.	Step when missed dose	<p>User has to select the following answer :</p> <p>a) I will take it as soon as I remember. But, if it's time for the next dose, I will omit the missed dose and continue with the next scheduled dose. Yes: 1, No: 0, Not sure: 0</p> <p>b) Leave it out and continue with the next scheduled dose. Yes: 1, No: 0, Not sure: 0</p> <p>c) Accumulate the missed dose together with the next dose. Yes: 1, No: 0, Not sure: 0</p> <p>Remarks :0 and 1 indicate point</p>	No	Others



7.	Side effects while taking immunosuppressant	User has to select the following answer : a) Stop taking without notify the doctor/ pharmacist <i>Yes: 1, No: 0, Not sure: 0</i> b) Stop take it and consult doctor immediately <i>Yes: 1, No: 0, Not sure: 0</i> c) Take other medication to resolve it without notify the doctor/ pharmacist <i>Yes: 1, No: 0, Not sure: 0</i> Remarks :0 and 1 indicate point	No	Others
8.	Step to take supplement	User has to select the following answer : a) Notify doctor/pharmacist before taking it <i>Yes: 1, No: 0, Not sure: 0</i> b) Take it together with immunosuppressant without notify the doctor/ pharmacist <i>Yes: 1, No: 0, Not sure: 0</i> c) Take supplement and stop immunosuppressant <i>Yes: 1, No: 0, Not sure: 0</i> Remarks :0 and 1 indicate point	No	Others

3.11 MTAC Reporting – Specific Detail Section (Geriatric)

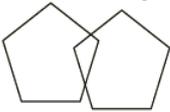
3.11.1 Screen Design

ID	MTAC.SD10
Description	Specific Details Geriatric
Diagram	
1) Main	
	
2) MMSE Section 1- Section 5	



Orientasi Masa	
1. Tahun, bulan, hari, tarikh, waktu (+/- 1 jam)	
a. Tahun <input type="radio"/> Betul <input type="radio"/> Salah	b. Bulan <input type="radio"/> Betul <input type="radio"/> Salah
c. Hari <input type="radio"/> Betul <input type="radio"/> Salah	d. Tarikh <input type="radio"/> Betul <input type="radio"/> Salah
e. Waktu (+/- 1 jam) <input type="radio"/> Betul <input type="radio"/> Salah	
Orientasi Tempat	
2. Negara, Negeri, Bandar, Tempat (hospital/rumah), bilik (wad/klinik)	
a. Negara <input type="radio"/> Betul <input type="radio"/> Salah	b. Negeri <input type="radio"/> Betul <input type="radio"/> Salah
c. Bandar <input type="radio"/> Betul <input type="radio"/> Salah	d. Tempat (Hospital/rumah) <input type="radio"/> Betul <input type="radio"/> Salah
e. Bilik (Wad/Klinik) <input type="radio"/> Betul <input type="radio"/> Salah	
Pendaftaran	
3. Saya akan menguji ingatan awak. Sila dengar dengan teliti, tiga objek yang saya akan baca, iaitu, oren, kunci dan sikat. Sila sebut semula tiga objek tadi. Ingat betul-betul, kerana saya akan bertanya kemudian.	
a. Oren <input type="radio"/> Betul <input type="radio"/> Salah	b. Kunci <input type="radio"/> Betul <input type="radio"/> Salah
c. Sikat <input type="radio"/> Betul <input type="radio"/> 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-S: Atau, ejakan perkataan 'DUNIA' dari belakang ke depan	
a. Perhatian dan Pengiraan pertama <input type="radio"/> Betul <input type="radio"/> Salah	b. Perhatian dan Pengiraan kedua <input type="radio"/> Betul <input type="radio"/> Salah
c. Perhatian dan Pengiraan ketiga <input type="radio"/> Betul <input type="radio"/> Salah	d. Perhatian dan Pengiraan keempat <input type="radio"/> Betul <input type="radio"/> Salah
e. Perhatian dan Pengiraan kelima <input type="radio"/> Betul <input type="radio"/> Salah	
Ingat Kembali	
5. Sila sebut kembali 3 objek yang telah disebut tadi.	
a. Oren <input type="radio"/> Betul <input type="radio"/> Salah	b. Kunci <input type="radio"/> Betul <input type="radio"/> Salah
c. Sikat <input type="radio"/> Betul <input type="radio"/> Salah	

3) MMSE Section 6- Section 11

Penamaan	
6. Namakan benda ini. (Pensel dan Jam Tangan)	
a. Pensil <input type="radio"/> Betul <input type="radio"/> Salah	b. Jam Tangan <input type="radio"/> Betul <input type="radio"/> Salah
Ulangan	
7. Sebutkan tidak mungkin dan cukup mustahil <input type="radio"/> Betul <input type="radio"/> Salah	
Arahan tiga peringkat	
8. Arahan	
a. Ambil kertas dengan tangan kanan <input type="radio"/> Betul <input type="radio"/> Salah	b. Lipat setengah <input type="radio"/> Betul <input type="radio"/> Salah
c. dan letakkan atas lantai/meja <input type="radio"/> Betul <input type="radio"/> Salah	
Pembacaan	
9. Baca dan lakukan.....TUTUP MATA ANDA <input type="radio"/> Betul <input type="radio"/> Salah	
Penulisan	
10. Tulis satu ayat yang lengkap <input type="radio"/> Betul <input type="radio"/> Salah	
Penyalinan	
11. Salinkan rajah berikut <input type="radio"/> Betul <input type="radio"/> Salah	
	
SCORE: <input type="text" value="0"/>	
Score Indicator: 21 ≤ cognitive impairment , > 21 =no cognitive impairment	
Notes	Click on save & continue button to save the record and proceed with reporting section
Cross References	None

3.11.2 Application Business Rules

None

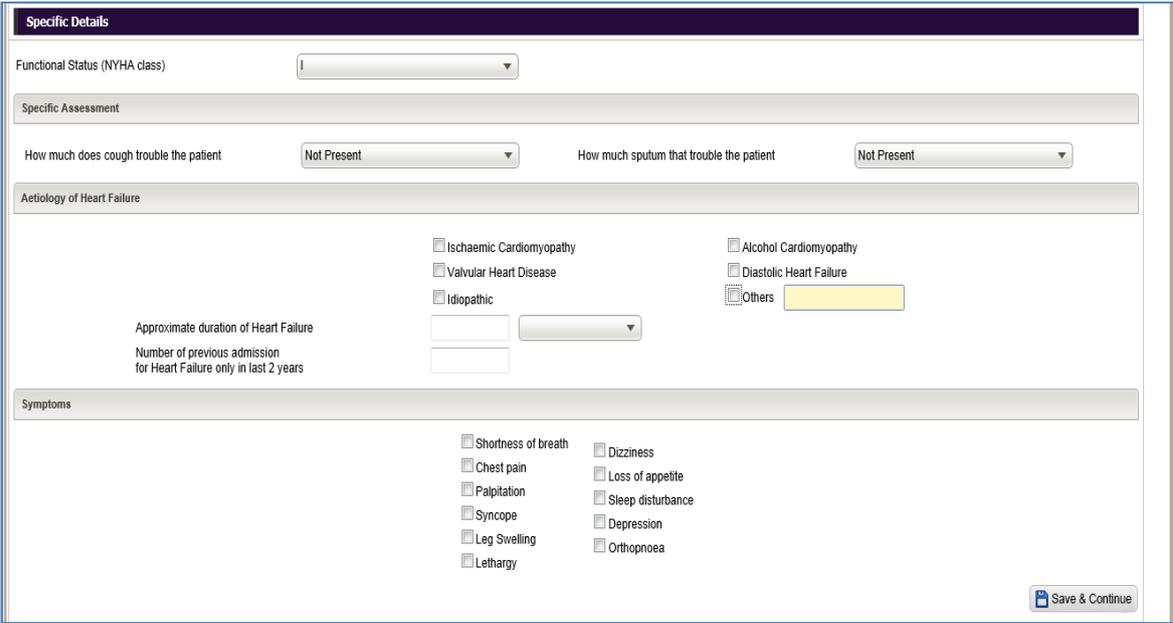
3.11.3 Input Validation Rules

No	Name	Description	Mandatory	Format
1.	Time orientation	User has to select the following result whether true or false for following question : 1) Tahun 2) Bulan 3) Hari 4) Tarikh 5) Waktu (+/- 1 jam) <i>True :1 mark, False : 0 mark</i>	No	Others
2.	Place orientation	User has to select the following result whether true or false for following question : 1) Negara 2) Negeri 3) Bandar 4) Tempat (Hospital/rumah) 5) Bilik (Wad/Klinik) <i>True :1 mark, False : 0 mark</i>	No	Others
3.	Registration	User has to select the following result whether true or false for following question : 1) Oren 2) Kunci 3) Sikat <i>True :1 mark, False : 0 mark</i>	No	Others
4.	Observation and calculation	User has to select the following result whether true or false for following question : 1) Perhatian dan Pengiraan pertama 2) Perhatian dan Pengiraan kedua 3) Perhatian dan Pengiraan ketiga 4) Perhatian dan Pengiraan keempat 5) Perhatian dan Pengiraan kelima <i>True :1 mark, False : 0 mark</i>	No	Others
5.	Memory	User has to select the following result whether true or false for following question : 1) Oren 2) Kunci 3) Sikat <i>True :1 mark, False : 0 mark</i>	No	Others
6.	Name	User has to select the following result whether true or false for following name : 1) Pensil 2) Jam Tangan <i>True :1 mark, False : 0 mark</i>	No	Others
7.	Repetition	User has to select the following result whether true or false for following repetition:	No	Others

		Sebutkan 'Tidak mungkin dan cukup mustahil' <i>True :1 mark, False : 0 mark</i>		
8.	Instruction	User has to select the following result whether true or false for following instruction : 1) Ambil kertas dengan tangan kanan, 2) lipat setengah 3) dan letakkan atas lantai/meja. <i>True :1 mark, False : 0 mark</i>	No	Others
9.	Reading and action	User has to select the following result whether true or false for following action : Baca dan lakukan.TUTUP MATA ANDA <i>True :1 mark, False : 0 mark</i>	No	Others
10.	Writing	User has to select the following result whether true or false for following writing : Tulis satu ayat yang lengkap. <i>True :1 mark, False : 0 mark</i>	No	Others
11.	Copying	User has to select the following result whether true or false for following question : Salinkan rajah berikut:  <i>True :1 mark, False : 0 mark</i>	No	Others

3.12 MTAC Reporting – Specific Detail Section (Heart Failure)

3.12.1 Screen Design

ID	MTAC.SD11
Description	Specific Details Heart Failure
Diagram	
	
Notes	Click on save & continue button to save the record and proceed with reporting section
Cross References	None

3.12.2 Application Business Rules

None

3.12.3 Input Validation Rules

No	Name	Description	Mandatory	Format
1.	Functional Status (NYHA Class)	User has to select one out of the following from the dropdown. The values are populated from System Parameter, category-NYHA Class	No	Drop Down List
2.	How much does cough trouble the patient	User has to select one out of the following from the dropdown. The values are populated from System Parameter, category-Assessment Type.	No	Drop Down List
3.	How much sputum that trouble the	User has to select one out of the following from the dropdown. The values are populated from	No	Drop Down List

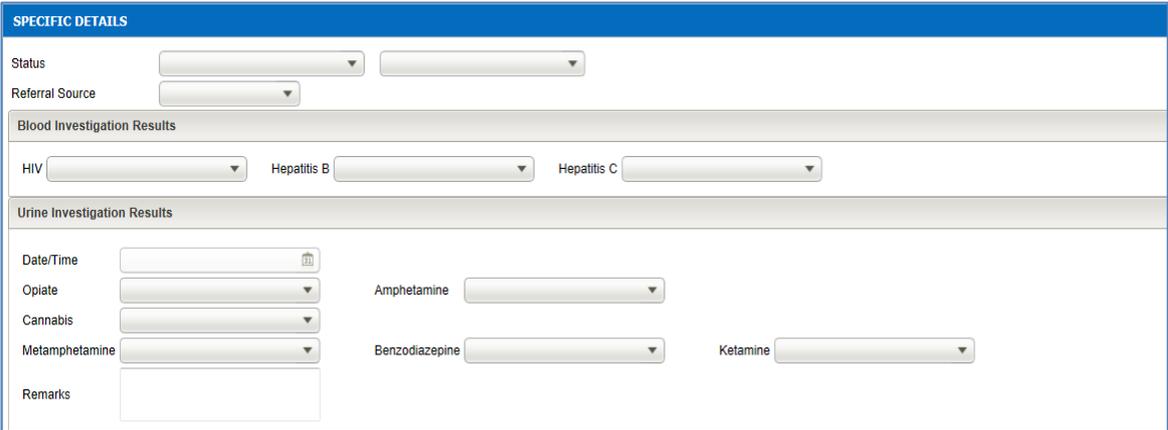
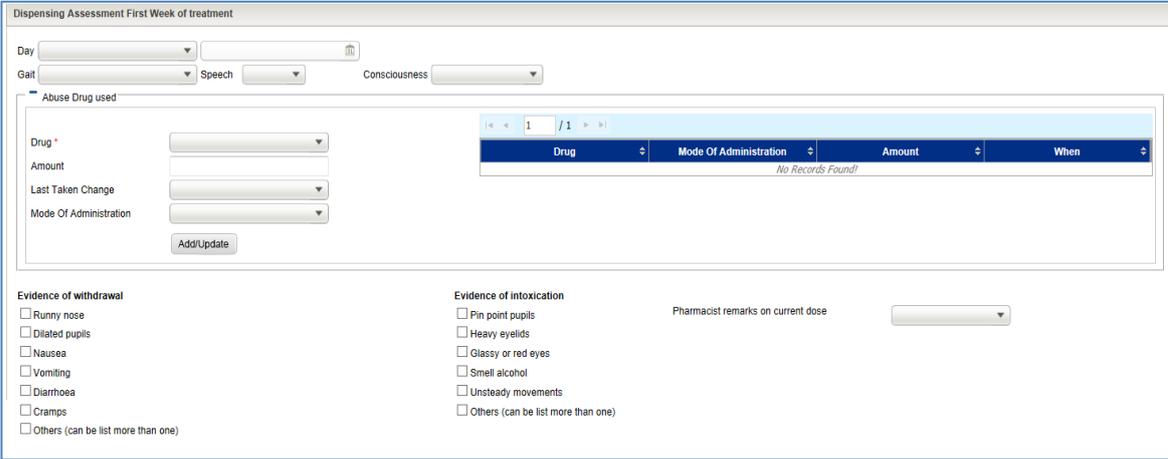


	patient	System Parameter, category-Assessment Type		
4.	Ischaemic Cardiomyopathy	Check Box provided for selection.	No	Check box
5.	Valvular Heart Disease	Check Box provided for selection.	No	Check box
6.	Idiopathic	Check Box provided for selection.	No	Check box
7.	Alcohol Cardiomyopathy	Check Box provided for selection.	No	Check box
8.	Diastolic Heart Failure	Check Box provided for selection.	No	Check box
9.	Others	Check Box provided for selection.	No	Check box
10.	Others	A free text field with maximum of 100 characters capacity.is provided if others checkbox is checked.	No	Text Field
11.	Approximate duration of Heart Failure information	Free text field with maximum of 20 characters capacity.	No	Text Field
12.	Approximate duration of Heart Failure information	User has to select one out of the following from the dropdown Month or Year	No	Drop Down List
13.	Number of previous admission for Heart Failure only in the last 2 years	Free text field with maximum of 20 characters capacity.	No	Text Field
14.	Shortness of breath	Check Box provided for selection.	No	Check box
15.	Chest pain	Check Box provided for selection.	No	Check box
16.	Palpitation	Check Box provided for selection.	No	Check box
17.	Syncope	Check Box provided for selection.	No	Check box
18.	Leg Swelling	Check Box provided for selection.	No	Check box
19.	Lethargy	Check Box provided for selection.	No	Check box
20.	Dizziness	Check Box provided for selection.	No	Check box
21.	Loss of appetite	Check Box provided for selection.	No	Check box
22.	Sleep disturbance	Check Box provided for selection.	No	Check box
23.	Depression	Check Box provided for selection.	No	Check box
24.	Orthopnoea	Check Box provided for selection.	No	Check box
25.	Cough	Check Box provided for selection.	No	Check box
26.	Sputum	Check Box provided for selection.	No	Check box



3.13 MTAC Reporting – Specific Detail Section (Methadone)

3.13.1 Screen Design

ID	MTAC.SD12
Description	Specific Details Methadone
Diagram	
i. Blood Investigation, Urine Investigation Results	
	
ii. Dispensing Assessment First Weeks	
	
iii. Record Methadone Intervention/Activity	

Intervention / Activity																			
Intervention/Activity	<input type="text"/>	<table border="1"> <tr> <td><<</td> <td>1</td> <td>/</td> <td>1</td> <td>>></td> </tr> <tr> <th>No</th> <th>Intervention/Activity</th> <th>Description</th> <th>No of Intervention/Activity</th> <th>Remarks/Action Taken</th> </tr> <tr> <td colspan="5" style="text-align: center;">No Records Found!</td> </tr> </table>			<<	1	/	1	>>	No	Intervention/Activity	Description	No of Intervention/Activity	Remarks/Action Taken	No Records Found!				
<<	1	/	1	>>															
No	Intervention/Activity	Description	No of Intervention/Activity	Remarks/Action Taken															
No Records Found!																			
Description	<input type="text"/>																		
No of intervention/Activity	<input type="text"/>																		
Remarks/Action Taken	<input type="text"/>																		
Add/Update																			
Notes	Click on save & continue button to save the record and proceed with reporting section																		
Cross References	None																		

3.13.2 Application Business Rules

None

3.13.3 Input Validation Rules

No	Name	Description	Mandatory	Format
1.	Status	There will be a Status drop-down combo box in Specific Details tab for category: <ul style="list-style-type: none"> Active Inactive 	No	Drop Down List
2.	Status type	If active is selected the following values are displayed. The values system defined <ul style="list-style-type: none"> Current Re-entry - Date Transfer – Date – Referring Facility If inactive is selected then the following. The values are populated from system parameter, category-methadone inactive status <ul style="list-style-type: none"> Default - Date Passed Away - Date Prison - Date Lock Up - Date Terminated – Date Transfer Out – Date – Referring Facility 	No	Drop Down List
3.	Date	Date to be entered in dd/mm/yyyy format.	No	Calendar
4.	Referring Facility	Referring Facility free text field is populated if Transfer In or Transfer Out is selected in the status box. 100 characters.	No	Text Field



Blood Investigation Results				
1.	HIV	Drop down select box .The values are populated from System parameter, category-"HIV_BLOOD_TEST". 1) Negative 2) Positive 3) Unknown	No	Drop Down List
2.	Hepatitis B	Drop down select box .The values are populated from System parameter, category-"HEPATITISB_BLOOD_TEST". 1) Ab-VE 2) Ab+VE 3) Ag+VE 4) Non-Reactive 5) Unknown	No	Drop Down List
3.	Hepatitis C	Drop down select box .The values are populated from System parameter, category-"HEPATITISC_BLOOD_TEST". 1) Ab-VE 2) Ab+VE 3) Non-Reactive 4) Unknown	No	Drop Down List
Urine Investigation Results				
1.	Sample Date/Time	Sample Date/Time is to be selected from calendar control. It will be in dd/mm/yyyy hh/mm 12 format	No	Calendar
2.	Opiate	Drop down select box .The values are populated from System parameter, category-"LAB_URINE_TYPE". 1) Negative 2) Positive	No	Drop Down List
3.	Cannabis	Drop down select box .The values are populated from System parameter, category-"LAB_URINE_TYPE". 1) Negative Positive	No	Drop Down List
4.	Benzodiazepine	Drop down select box .The values are populated from System parameter, category-"LAB_URINE_TYPE". 1) Negative 2) Positive	No	Drop Down List
5.	ATS	Drop down select box .The values are populated from System parameter, category-"LAB_URINE_TYPE". 1) Negative 2) Positive	No	Drop Down List



6.	Metamphetamine	Drop down select box .The values are populated from System parameter, category-"LAB_URINE_TYPE". 1) Negative 2) Positive	No	Drop Down List
7.	Benzodiazepine	Drop down select box .The values are populated from System parameter, category-"LAB_URINE_TYPE". 1) Negative 2) Positive	No	Drop Down List
8.	Remarks	Remarks are free text with a capacity of 100 characters.	No	Text Field
Dispensing Assessment First Week of Treatment				
1.	Day (1)	The drop down will show values from 2-8.System Parameter methadone day	No	Drop Down List
2.	Day (2)	On selection of the day date field will be enabled. Date to be entered in dd/mm/yyyy format.	No	Calendar
3.	Gait	Gait drop-down combo box: The values are populated from system parameter, category- gait • Normal • Impaired	No	Drop Down List
4.	Speech	Speech drop-down combo box: The values are populated from system parameter, category-speech • Slurred • Normal • Pressured	No	Drop Down List
5.	Consciousness	Consciousness drop-down combo box: The values are populated from system parameter, category-consciousness • Drowsy • Alert • Agitated	No	Drop Down List
Abused Drug Used				
1.	Drug	Drop down select box .The values are populated from System parameter, category-Abuse drugs.	No	Drop Down List
2.	Description	Free text field of 50 character length. Description becomes mandatory if 'Others' is selected from the Drug dropdown.	No	Text Field
3.	Amount	Free text field with maximum of 50 characters capacity.	No	Text Field
4.	When – Date	When-Date is to be selected from calendar control. It will be in dd/mm/yyyy 12 format	No	Calendar
5.	When -Time	When-Time is to be selected from Time control. It will be in hh/mm/ss 12 format	No	Calendar



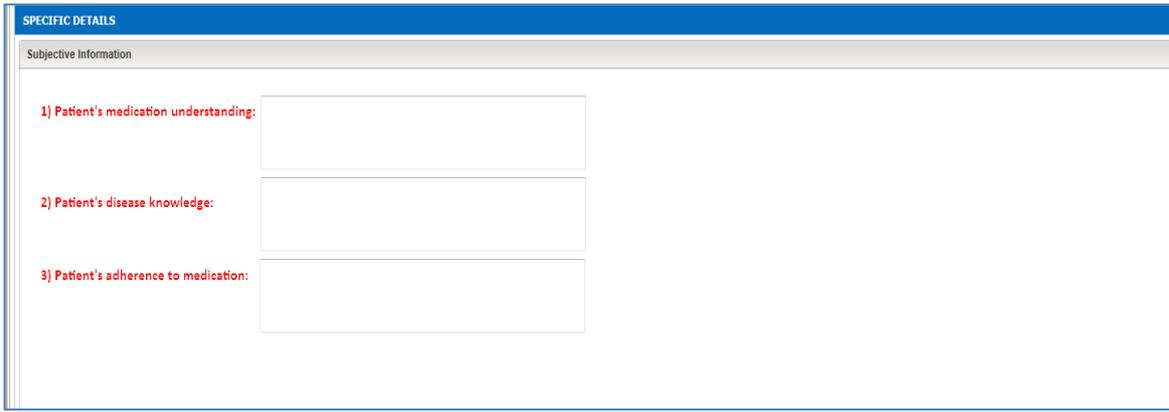
6.	Evidence of withdrawal	<p>Checkboxes provided for selection of evidence of withdrawal. The selection are :</p> <ol style="list-style-type: none"> 1) Runny nose 2) Dilated pupils 3) Nausea and/or vomiting 4) Diarrhea 5) Cramps 6) Others – Free text 	No	Check Box
7.	Evidence of Intoxication	<p>Checkboxes provided for selection of evidence of withdrawal. The selection are :</p> <ol style="list-style-type: none"> 1) Pin point pupils 2) Heavy lids 3) Glassy or red eyes 4) Smell alcohol 5) Unsteady movements 6) Others – Free text 	No	Check Box
8.	Current dose	<p>Current dose drop-down combo box: The values are populated from system parameter :</p> <ol style="list-style-type: none"> 1) Too low - Remarks 2) Sufficient 3) Too High - Remarks 	No	Drop Down List
9.	Intervention/Activity	<p>Drop-down combo box. The values are populated from system parameter :</p> <ol style="list-style-type: none"> 1) Adverse Drug Reaction Monitoring Drug Information 2) Drug Interaction Monitoring 3) Methadone Dose Modification 4) Type of Side Effect 	No	Drop Down List
10.	Description	<p>Drop-down combo box. The values are populated from system parameter :</p> <ol style="list-style-type: none"> 1) Adverse Drug Reaction Monitoring <ul style="list-style-type: none"> -Case not reported -Case reported to MADRAC -No. Of ADR cases 2) Drug Information <ul style="list-style-type: none"> -Clinic staff -Others -Patient/Next of kin 3) Drug Interaction Monitoring <ul style="list-style-type: none"> -Change To Other Drug -Interaction Case Detected -Space Out Drug Consumption Time 4) Methadone Dose Modification 	No	Drop Down List



		<ul style="list-style-type: none"> -Dose Decrease Suggestion -Dose Increase Suggestion -Split Dose Suggestion -Sugesstion Accepted -Withhold Dose Suggestion <p>5) Type of Side Effect</p> <ul style="list-style-type: none"> -Constipation -Decrease libido and sex function -Dental problem -Drowsiness after dosing -Excessive sweating -Fatigue -Increase in body weight -Insomnia -Itchiness -Loss of appetite -Nausea/vomiting -Other adverse reaction(Please specify) -Overdose symptom -Skin Bruising -Withdrawal symptom 		
11.	No of Intervention/Activity	Data is to be entered in the text box. Maximum of 5 integers	No	Text Field
12.	Remarks/Action Taken	Remarks/Action Taken are free text with a capacity of 100 characters.	No	Text Field

3.14 MTAC Reporting – Specific Detail Section (CCB)

3.14.1 Screen Design

ID	MTAC.SD13
Description	Specific Details CCB
Diagram	
	
Notes	<ul style="list-style-type: none"> Click on save button to save record
Cross References	None

3.14.2 Application Business Rules

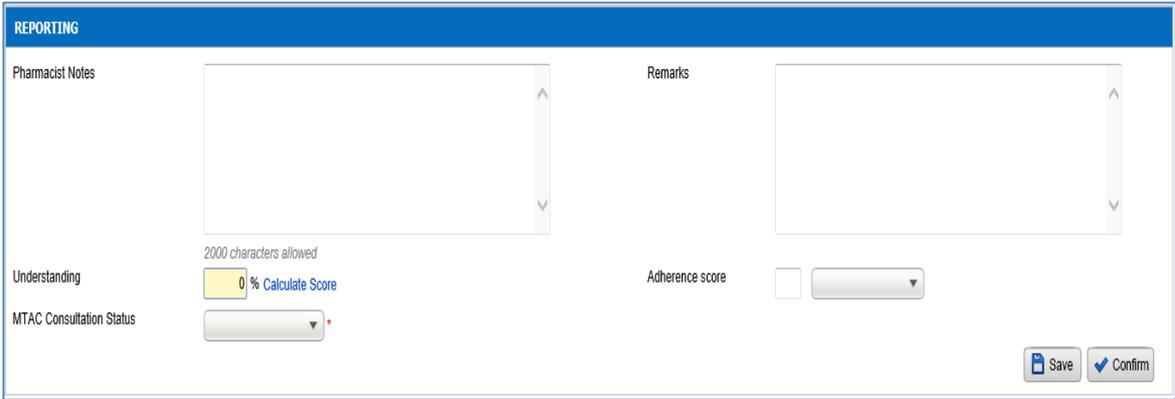
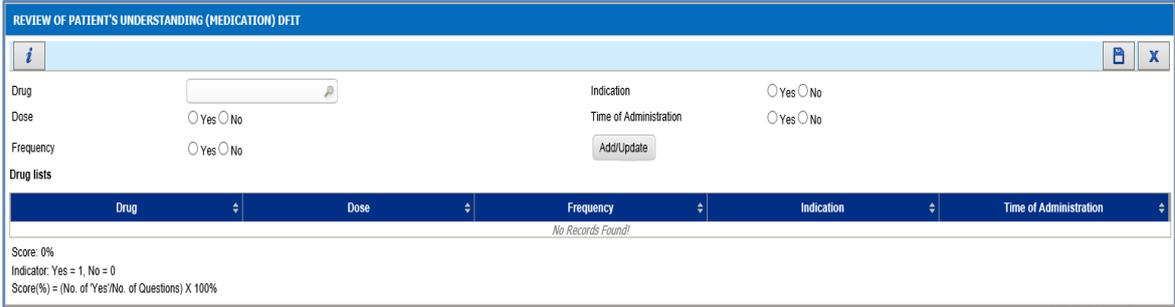
None

3.14.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Patient's medication understanding	Free text field with maximum 500characters	No	Text Field
2.	Patient's disease knowledge	Free text field with maximum 500characters	No	Text Field
3.	Patient's adherence to medication	Free text field with maximum 500characters	No	Text Field

3.15 MTAC Reporting – Reporting

3.15.1 Screen Design

ID	MTAC.SD14
Description	Reporting Screen
Diagram	
<p>i. Reporting – Main</p> 	
<p>ii. Reporting – Understanding</p> 	
Notes	<ul style="list-style-type: none"> • Click on save button to save the record • Click on confirm button to complete the record • Click on Medication Order button to prescribe drug
Cross References	None

3.15.2 Application Business Rules

No.	Name	Description
1.	Medication Order button	<ul style="list-style-type: none"> • Medication Order button only will be display for user with role pharmacist can create order • On click of medication order button, medication order screen will be display. Mandatory to assign Doctor for endorsement purpose.



3.15.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Pharmacist Note	Free text field with maximum 2000characters	No	Text Field
2.	Remarks	Free text field with maximum 500characters	No	Text Field
3.	Adherence Score	Free numbering column with allow two decimal and allow user to select the value from the drop down with value: <ul style="list-style-type: none"> Adherence No Adherence 	No	Text Field
4.	MTAC Consultation Status	Drop-down combo box. The values are populated from system parameter : <ul style="list-style-type: none"> Need Follow up Discharged If need follow up selected another button for schedule MTAC Appointment will appear. User can set follow up appointment for the patient.	Yes	Drop Down List
5.	Understanding	The result based on the patient understanding score. Score(%) = (No. of 'Yes'/No. of Questions) X 100%	No	Others
Understanding				
1.	Drug	<ul style="list-style-type: none"> User can search and add drug Current medication drug only will be display 	No	Searching field
2.	Dose	Radio button provided. User has to select <i>Yes :1 mark, No : 0 mark</i>	No	Radio Button
3.	Frequency	Radio button provided. User has to select <i>Yes :1 mark, No : 0 mark</i>	No	Radio Button
4.	Indication	Radio button provided. User has to select <i>Yes :1 mark, No : 0 mark</i>	No	Radio Button
5.	Time administration	Radio button provided. User has to select <i>Yes :1 mark, No : 0 mark</i>	No	Radio Button



3.16 MTAC Reporting – CP1

3.16.1 Screen Design

ID	MTAC.SD15
Description	MTAC Reporting – CP1

Diagram

i. CP1

The screenshot shows a patient profile for 'CP1' with the following details:

- Personal Information:** MyKad, Age: 66 Years 03 Months 02 Days, Gender: Male, MRN, Address, Phone And Email, Diagnosis, No known Allergies.
- Physical Information:** Height, Weight, BMI/BSA, Update (Last Updated:), Nationality: Warganegara.
- Prescription Medication Table:**

Drug Name	Original Rx No	Order Details	Balance From Previous Supply	Medication Status	Source of Medication	Comments
Ammonia and Ipecacuanha Mixture BP			0 ml	FULLY DISPENSED	KK Greentown	Outpatient / 23-09-2017 / EncounterNo:0064
Ipratropium Br 0.5mg, Salbutamol 2.5mg Neb (UDV)			1 ampoule	ORDERED HOLD	KK Greentown	Outpatient / 23-09-2017 / EncounterNo:0064
Perindopril 4 mg Tablet		4 MG OD				
- Non Prescription Medication Table:**

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

ii. Prescription medication – On click of add prescription medication button

The 'PRESCRIPTION MEDICATION' form includes the following fields:

- Medication (Specify Strength):
- Original Rx No:
- Order Details:
- Comments:
- Balance From Previous Supply:
- Medication Status:
- Source of Medication:

iii. Non prescription medication – on click of add non prescription medication

The 'NON PRESCRIPTION MEDICATION' form includes the following fields:

- Non-prescription Medication:
- Source of Medication:
- Reason for Taking:
- Balance/Comments:

Notes	<ul style="list-style-type: none"> • Click on save button to save the record. • Click on delete button to delete the record.
Cross References	None

3.16.2 Application Business Rules

No.	Name	Description
1	Prescription Medication	<ul style="list-style-type: none"> • To display past medical drug history last visit from current hospital <ul style="list-style-type: none"> ○ Inpatient - display discharge medication, if no discharge medication, display medication ○ Outpatient - display medication ○ To exclude if the drug status = Cancelled / Stop • Only checked Prescription medication will be listed in the MTAC reporting main screen and MTAC printed form
2	Non Prescription medication	<ul style="list-style-type: none"> • Non Prescription medication record will be display on MTAC reporting –Assessment • Only checked non Prescription medication will be listed in the MTAC reporting main screen and MTAC printed form

3.16.3 Input Validation Rules

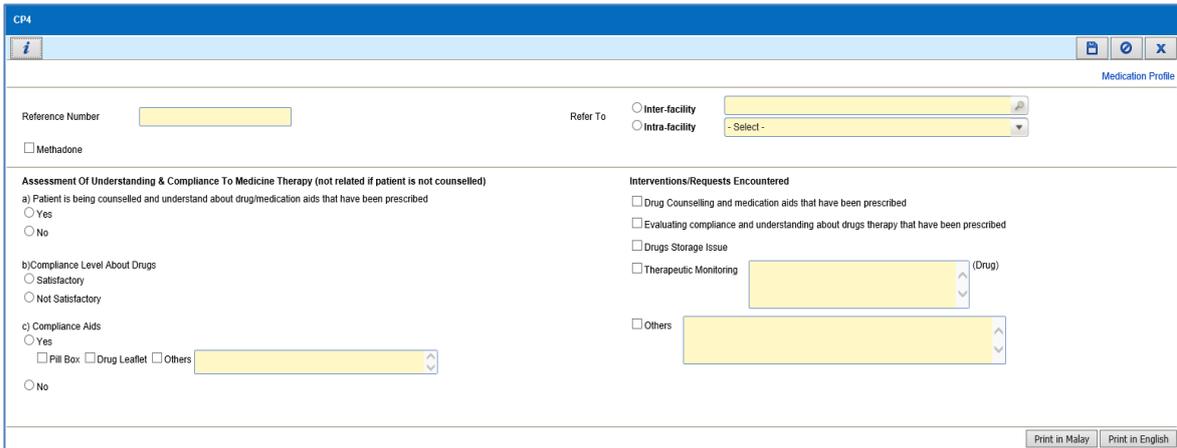
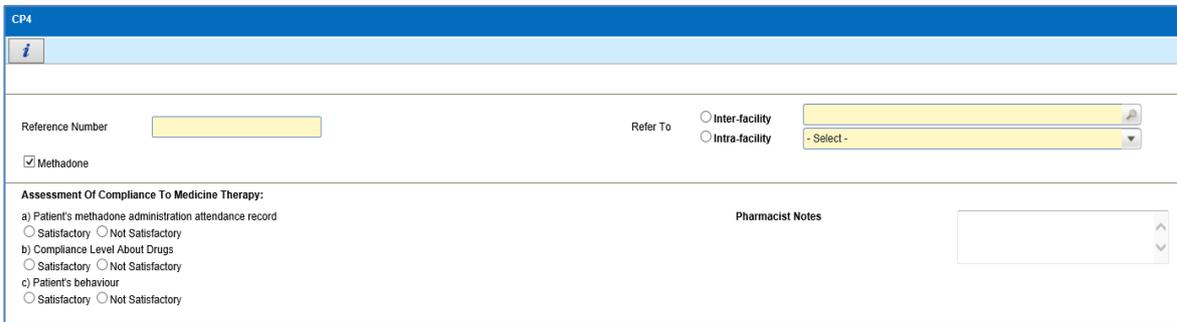
No.	Name	Description	Mandatory	Format
Prescription Medication				
1.	Medication (Specify Strength)	Medication (Specify Strength) is to be search in the text box. Data is pull from drug master.	Yes	Searching Field
2.	Original RX No	Original Rx No to be entered in the text box. Maximum of 20 characters capacity	No	Text Field
3.	Order Details	An order detail is to be entered in the text box. Maximum of 100 characters capacity	No	Text Field
4.	Comments	Comments are to be entered in the text box. Maximum of 500 characters capacity	No	Text Field
5.	Balance From Previous Supply	Balance From Previous Supply is to be entered in the text box. Maximum of 100 characters capacity	No	Text Field
6.	Medication Status	Medication Status is to be selected from the drop down list. Dropdown will be populated from lookup table where domain = "MEDICATION_STATUS" i. Medication Status - This field will show all data in a combo box based on the	No	Drop Down List



		"MEDICATION_STATUS" values configured in the lookup table.		
7.	Source of Medication	Source of Medication is to be entered in the text box. Maximum of 100 characters capacity	No	Text Field
Non- Prescription Medication				
1.	Non-prescription Medication	Non-prescription Medication is to be entered in the text box. Maximum of 100 characters capacity.	No	Text Field
2.	Source of Medication	Source of Medication is to be entered in the text box. Maximum of 100 characters capacity.	No	Text Field
3.	Reason for Taking	Reason for Taking is to be entered in the text box. Maximum of 100 characters capacity.	No	Text Field
4.	Balance/Comments	Balance/Comments is to be entered in the text box. Maximum of 100 characters capacity.	No	Text Field

3.17 MTAC Reporting – CP4

3.17.1 Screen Design

ID	MTAC.SD16
Description	MTAC Reporting – CP4
Diagram	
<p>i. CP4</p> 	
<p>ii. CP4 Methadone</p> 	
Notes	<ul style="list-style-type: none"> • Click on save button to save the record. • Click on delete button to delete the record.
Cross References	None

3.17.2 Application Business Rules

None

3.17.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
CP4				
1.	Reference Number	Reference Number is auto generated. This field is not editable. Format – CP4/running number (based on facility)	No	Searching Field
2.	Refer To	Radio button option of : <ul style="list-style-type: none"> • Inter-facility - Data is pull from external facility master. • Intra-facility – Data is pull from department master 	No	Radio button
3.	Methadone	Methadone is to be selected or deselected.	No	Check box
4.	Question a	A value has to be selected from 2 available values, Yes /No	No	Radio button
5.	Question b	A value has to be selected from 2 available values, Satisfied /Non Satisfied	No	Radio button
6.	Question c	A value has to be selected from 4 available values, Pill box /Drug Leaflet/Others No. If select NO, all other selection will be deselected. If select value other than NO, NO value will be auto deselected	No	Radio button
7.	Interventions /Requests Encountered	Check box available for below value: <ul style="list-style-type: none"> • Drug Counselling and medication aids that have been prescribed • Evaluating compliance and understanding about drugs therapy that have been prescribed • Drugs Storage Issue • Therapeutic Drug Monitoring (if checked, free text field available with 100 maximum characters) • Others (if checked, free text field available with 200 maximum characters) 	No	Check Box
CP4 Methadone				
1.	Patient's methadone administration attendance record	This question is associated with radio-button option of the following: <ul style="list-style-type: none"> • Satisfactory • Non Satisfactory 	No	Radio button
2.	Compliance Level About Drugs	This question is associated with radio-button option of the following: <ul style="list-style-type: none"> • Satisfactory • Non Satisfactory 	No	Radio button
3.	Patient's	This question is associated with radio-button option	No	Radio



	behaviour	of the following: <ul style="list-style-type: none">• Satisfactory• Non Satisfactory		button
4.	Pharmacist Note	Pharmacist Note is to be entered in the text box. Maximum of 100 characters capacity.	No	Text Field



3.18 Integration

None



4. References

List out the documents in which the stated procedures in this document refer to.

Document	Description/ Expansion
PHIS_CPS_URS_MTAC_v1.3	User Requirement Specification document for MTAC module

5. Acronyms

Item	Description
UOM	Unit of Measurement
MTAC	Medication Therapy Adherence Clinic

6. Appendix