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

System Design Document
(SDD)

Drug Information

Version	**: 1.3**
Document ID	**: PhIS_CPS/SDD/DI**

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

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

REVISION HISTORY

Version No	Date of Release	Prepared by	Reviewed by	List of changes from Previous Version
0.1	16/3/2012	Norlaileza Sidek	G. Shenoy (SME)	Initial 1st draft
0.2	30/03/2012	Norlaileza Sidek	G. Shenoy (SME)	Comment added
0.3	12/03/2012	Norlaileza Sidek	G. Shenoy (SME)	Comment added
1.0	04/04/2012	Norlaileza Sidek	Maxine Wong (QA)	Comment added
1.1	10/04/2018	Norlaileza Sidek	MOH	Changes based on version 1.7 release
1.2	18/05/2018	Norlaileza Sidek	MOH	Comment added
1.3	01/03/2019	Norlaileza Sidek	MOH	Updated based on module owner comments

Reviewed By:

Pharmaniaga Logistics Sdn Bhd		Ministry Of Health	
Signature :		Signature :	
Name :		Name :	
Title :		Title :	
Date :		Date :	

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

Table of Content

1. INTRODUCTION 1

2. PURPOSE 1

3. DETAILED SYSTEM DESIGN 2

3.1 DRUG INFORMATION (DI) OVERVIEW 2

3.1.1 Block Diagram 2

3.1.2 Purpose 3

3.1.3 Screen Navigation Diagram 3

3.2 DETAIL FUNCTIONALITY AND SCREEN 4

3.2.1 Drug Information Listing 4

3.2.2 Drug Information – Enquirer Details 7

3.2.3 Drug Information – Patient Details 10

3.2.4 Drug Information – Enquiry Details 12

3.2.5 Drug Information – Search Similar Enquiry 13

3.2.6 Drug Information – Response Details 14

3.2.7 Drug Information – FAQ 17

4. REFERENCES 19

5. ACRONYMS 19

6. APPENDIX 19

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

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.

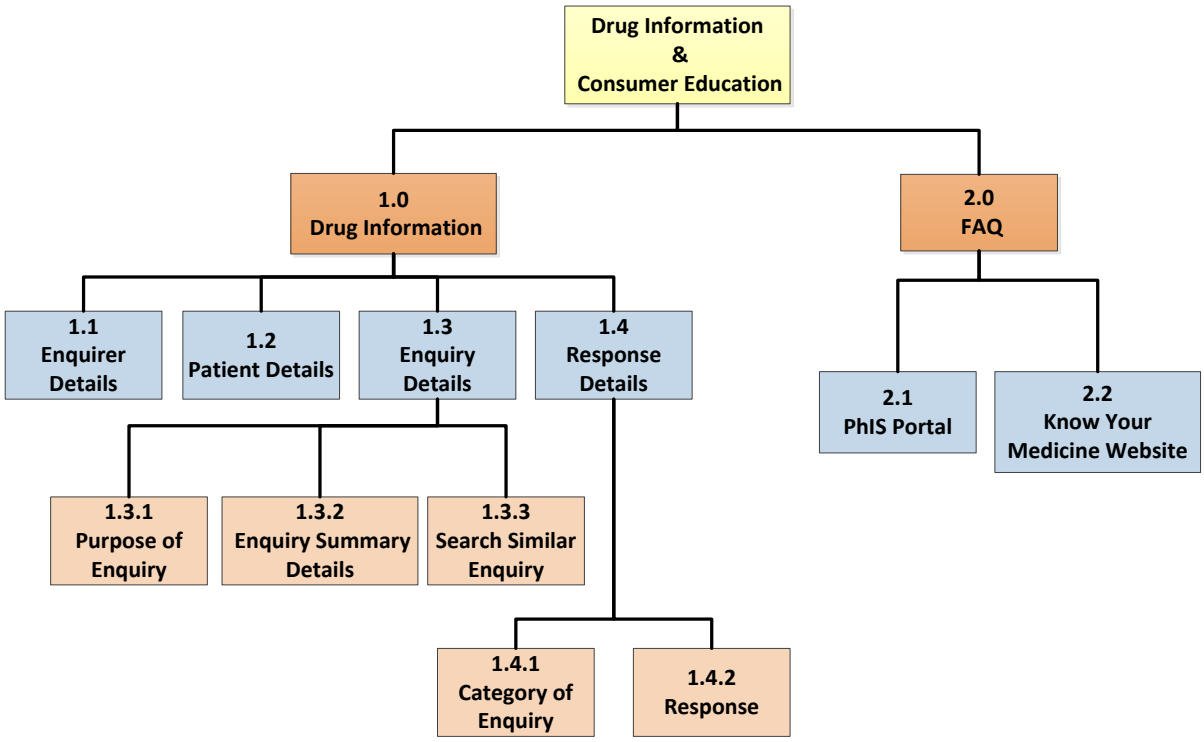
2. Purpose

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.

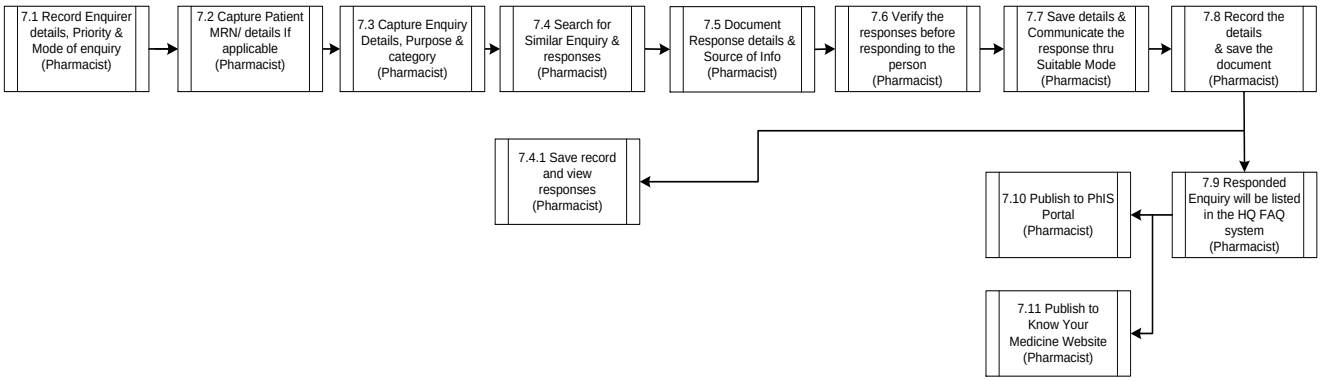
© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3. Detailed System Design

3.1 Drug Information (DI) Overview



3.1.1 Block Diagram

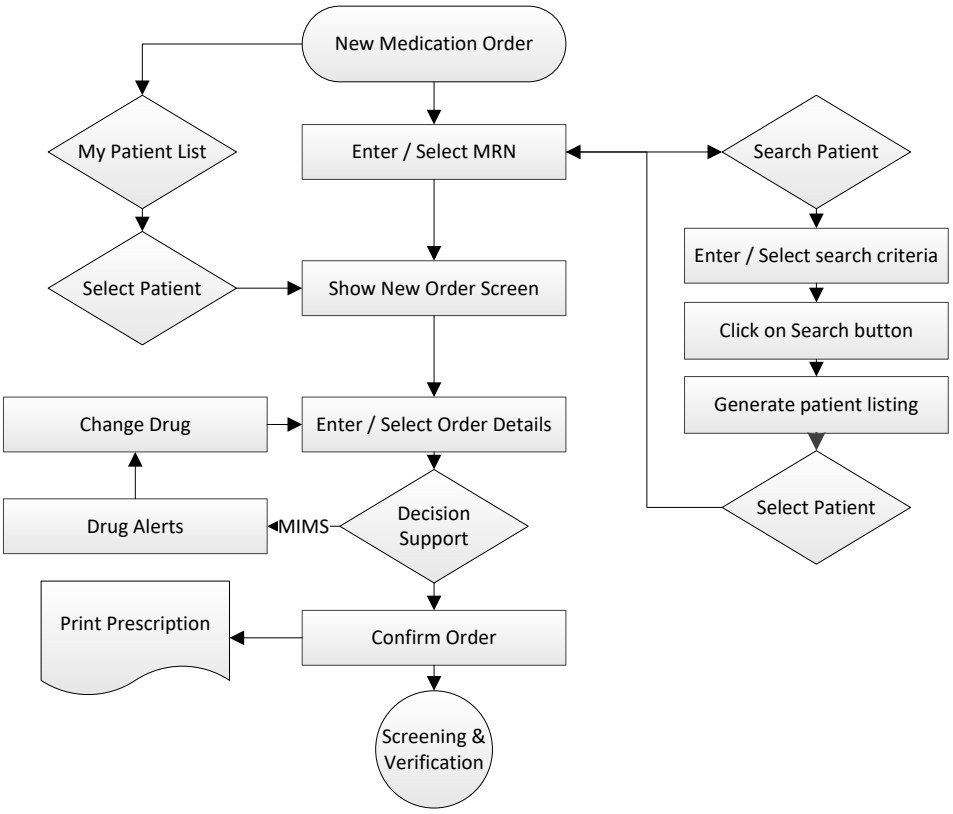


© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3.1.2 Purpose

This module shall be used to record new enquiry request and the enquiry will be send to pharmacist for the verification and provide response to the enquirer

3.1.3 Screen Navigation Diagram



CDR.SND1: New Medication Order

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

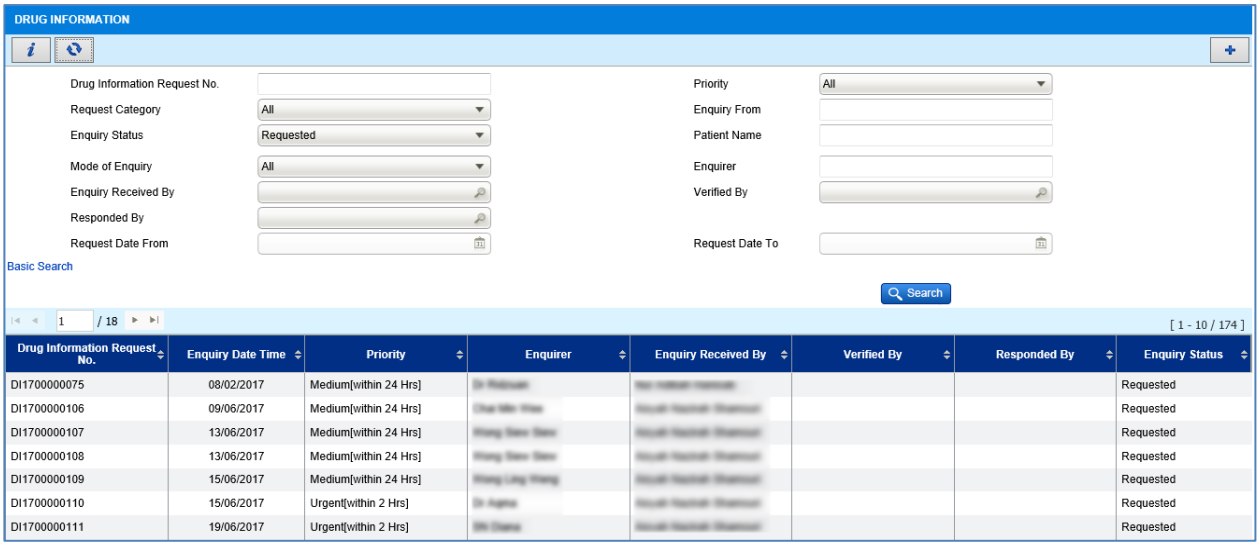
3.2 Detail Functionality and Screen

3.2.1 Drug Information Listing

3.2.1.1 Screen Design

ID	DI.SD1
Description	Drug Information Listing

Diagram



DI.SD1 – Drug Information Listing Screen

Notes	• This listing screen of Drug Information will be accessed using the Drug Information link from the menu bar. • Click on Add (+) button to add new drug enquiry record. • Click on search button to search for drug information record and double click to open the record • Drug information listing view is control by User access, if normal user only can view his/her owns enquiry. For DIU Pharmacist can view the whole enquiry transaction from all users.
Cross References	• PhIS_CPS/SDD/DI (Version 0.1) • PhIS_CPS/LLD/DI (Version 0.1)

3.2.1.2 Application Business Rules

No.	Name	Description
1.	Search Transaction	Click on the 'Search' button to search the existing record: i. By default filter record by : - Request Category = All - Enquiry Status = Requested - Priority = All - Mode of Enquiry = All ii. If user enters multiple search criteria, system will display the search results based on the specified criteria

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

No.	Name	Description
		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.	Refresh Listing	Click on the Refresh button to reset all searched records and searching criteria's to default value.
3.	View search result in listing page	Columns in search result listing are displayed based on: i. Drug Information Request No: Display auto generated Drug information request number ii. Enquiry Date Time : Display enquiry date iii. Priority : Display priority selected during record drug info iv. Enquirer : Display enquirer name v. Enquiry Received By : Display name of person who received the enquiry vi. Verified By : Display name of pharmacist who verified the record vii. Responded By : Display name of pharmacist who send the response viii. Enquiry Status : Display enquiry current status

3.2.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Drug Information Request No	Request no to be entered up to 12 characters.	No	Text box
2.	Priority: Display	Priority to be selected from the dropdown. Value as below: - All - Medium[within 24 Hrs] - Routine - Urgent[within 2 Hrs]	Yes	Drop down list
3.	Request Category	Request category to be selected from the dropdown. The list to be populated from System parameter, category-Request Category.	Yes	Drop down list
4.	Enquiry From	Enquiry From to be entered up to 100 characters.	No	Text box
5.	Enquiry Status	Enquiry Status to be selected from the dropdown. Value as below: - All - Verified - Requested - Responded	Yes	Drop down list

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

No.	Name	Description	Mandatory	Format
6.	Patient Name	Patient Name to be entered up to 100 characters.	No	Text box
7.	Mode of Enquiry	Mode of Enquiry to be selected from the dropdown. Value as below: - All - Drug Info for educational/counselling - E-mail - Fax - In person - Online - Telephone - Verbal/Walk-in	Yes	Drop down list
8.	Enquirer	Enquirer to be entered up to 100 characters.	No	Text box
9.	Enquiry Received By	Search field to be provided. The list of user to be populated from the database.	No	Search Field
10.	Verified By	Search field to be provided. The list of user to be populated from the database.	No	Search Field
11.	Responded By	Search field to be provided. The list of user to be populated from the database.	No	Search Field
12.	Request Date From	Request date from to be entered in dd/mm/yyyy format. Calendar selection to be provided	No	Calendar
13.	Request Date To	Request date to be entered in dd/mm/yyyy format. Calendar selection to be provided.	No	Calendar

3.2.1.1 Integration

None

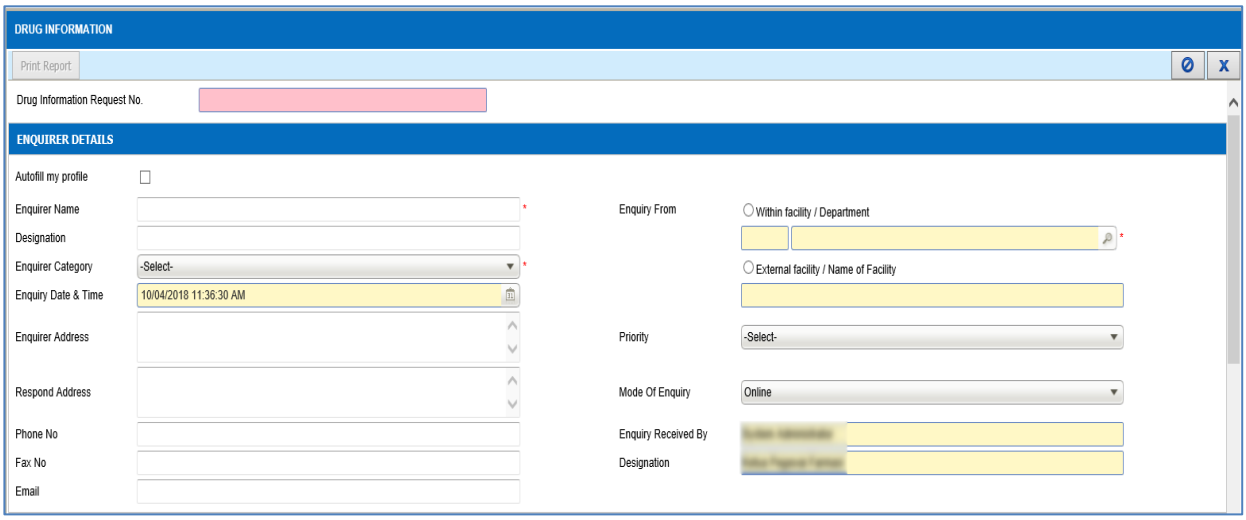
© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3.2.2 Drug Information – Enquirer Details

3.2.2.1 Screen Design

ID	DI.SD2
Description	Drug Information Screen (Enquirer Details)

Diagram



DI.SD2 – Drug Information Screen – Enquirer Details Section

Notes	• This Enquirer Details section is to capture all information about the enquirer information details • Click on 'Save' button to save the record.
Cross References	None

3.2.2.2 Application Business Rules

No.	Name	Description
1.	Autofill my profile	Tick on 'Autofill my profile' check box to capture information of enquirer details from user login id as registered in User profile. Information to be auto captured as below: - Enquirer Name - Designation - Enquirer Category - Enquirer Date Time - Enquirer Address - Phone No (Editable) - Fax No - Email (Editable)

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3.2.2.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Drug Information Request No.	Auto generated number after save the record	No	Read-only
2.	Autofill My Profile	A check box provided to auto fill enquirer details based on user profile	No	Check box
3.	Enquirer Name	Enquirer name is a Mandatory field. Free text entry maximum 150 character length.	Yes	Text box
4.	Enquiry From - Within facility / Department	Radio button provided, if selected will activate Department pop up searching field.	Yes	Search Field
5.	Enquiry From - External facility / Name of Facility	Radio button provided, if selected will activate External facility / Name of Facility Text field with maximum 50 characters	Yes	Text box
6.	Designation 1	Free text entry field maximum 50 characters capacity.	No	Text box
7.	Enquirer Category	Mandatory field There is a drop down combo .Dropdown to be populated from System Parameter, Category- Enquirer Category. List as below: - Public - MOH Healthcare provider - Non MOH Healthcare provider	Yes	Drop down list
8.	Enquiry Date & Time	This field is defaulted to the current date .Date to be in dd/mm/yyyy format. Calendar selection to be provided.	No	Read-only
9.	Enquirer Address	Free text entry field with a maximum 100 characters capacity.	No	Text box
10.	Priority	There is a drop down combo box Mandatory field. Dropdown to be populated from System Parameter, Category- Priority. List as below: - Urgent (within 2 Hrs) - Medium (within 24 Hrs) - Routine	Yes	Drop down list
11.	Respond Address	Free text field maximum 100 characters capacity.	No	Text box
12.	Mode Of Enquiry	Mode to be selected from drop down combo box .Dropdown to be populated from	Yes	Drop down list

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

No.	Name	Description	Mandatory	Format
		System Parameter, Category- Enquiry Mode. List as below: - Online - Verbal/Walk-in - Letters - Phone Calls - E-mail - Fax - SMS - Drug Information for Educational Purpose/Counselling		
13.	Phone No	Free text field maximum 20 characters capacity. Mandatory field.	No	Text box
14.	Enquiry Received by	Defaulted to the login user name.	No	Read-only
15.	Fax No	Free text field maximum 20 characters capacity.	No	Text box
16.	Designation 2	Automatically designation of login user name is defaulted.	No	Read-only
17.	Email	This is a free text field maximum 50 characters capacity. Mandatory field	No	Text box

3.2.2.4 Integration

None

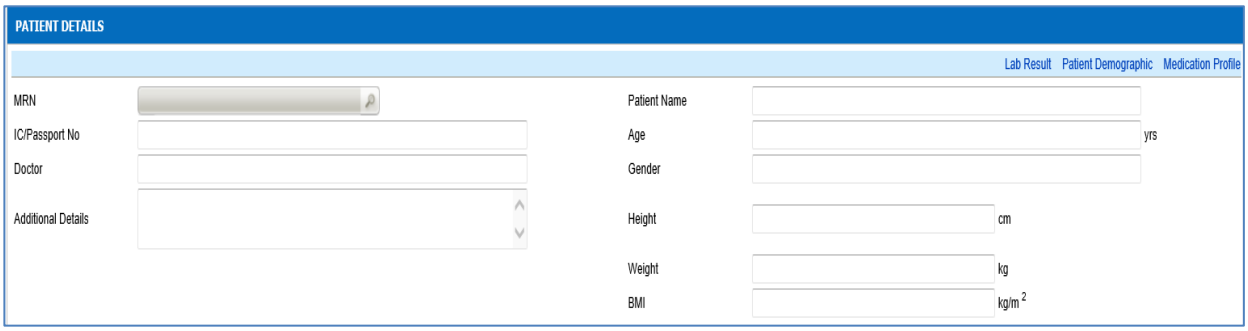
© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3.2.3 Drug Information – Patient Details

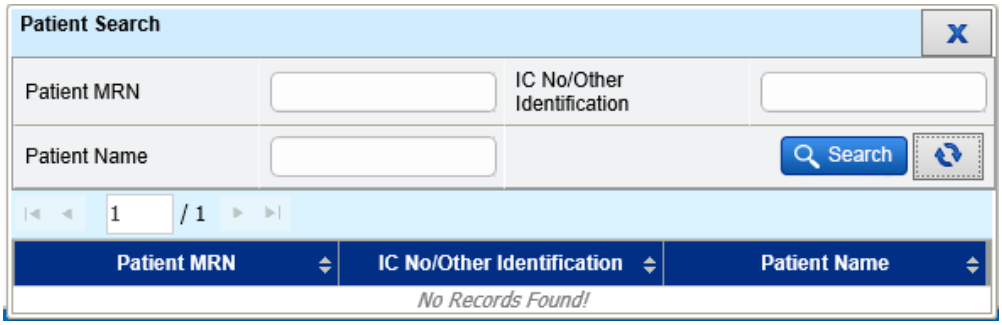
3.2.3.1 Screen Design

ID	DI.SD3
Description	Drug Information Screen (Patient Details)

Diagram



DI.SD3 – Drug Information Screen – Patient Details Section



DI.SD3 – Search Patient popup screen

Notes	• This Patient Details section is to capture all information about the patient if the drug enquiry is related to patient • Click on 'Save' button to save the record.
Cross References	None

3.2.3.2 Application Business Rules

No.	Name	Description
18.	Search patient	Click on the search icon to search using below criteria: i. Patient MRN ii. Patient Name iii. IC No/Other Identification Refer to diagram : *DI.SD3 – Search patient*

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3.2.3.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	MRN No	MRN Number is retrieved from the database for all registered patients.	No	Searching field
2.	Patient Name	Data from the database the selected based on MRN.	No	Read-only
3.	IC/Passport No	Data from the database the selected based on MRN.	No	Read-only
4.	Age	Data from the database the selected based on MRN.	No	Read-only
5.	Doctor	Free text field with a maximum capacity of 30 characters.	No	Read-only
6.	Gender	Data from the database the selected based on MRN.	No	Read-only
7.	Additional Details	Free text field for the user to key in the additional details of the patient with a maximum capacity of 1000 characters.	No	Text box
8.	Height	Data from the database the selected based on MRN.	No	Read-only
9.	Weight	Data from the database the selected based on MRN.	No	Read-only
10.	BMI	Data from the database the selected based on MRN.	No	Read-only

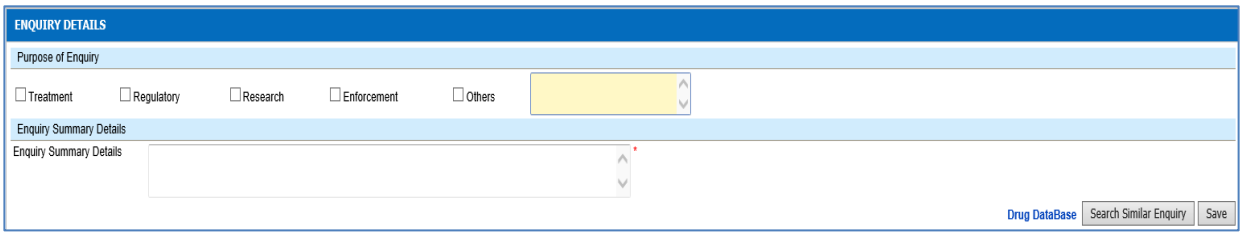
3.2.3.1 Integration

None

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3.2.4 Drug Information – Enquiry Details

3.2.4.1 Screen Design

ID	DI.SD4
Description	Drug Information Screen (Enquiry Details)
Diagram	 *DI.SD4 – Enquiry Details Section*
Notes	• Click on 'Save' button to save the record. • Click on 'Search Similar Enquiry' button to search for similar enquiry and answer. Refer to *3.2.5 Drug Information – Search Similar Enquiry*
Cross References	None

3.2.4.2 Application Business Rules

None

3.2.4.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Treatment	Checkbox to be checked if applicable	No	Checkbox
2.	Regulatory	Checkbox to be checked if applicable	No	Checkbox
3.	Research	Checkbox to be checked if applicable	No	Checkbox
4.	Enforcement	Checkbox to be checked if applicable	No	Checkbox
5.	Others	Checkbox to be checked if applicable	No	Checkbox
6.	Others	If others checkbox is checked then the details to be entered in this field. Maximum 100 characters.	No	Text box
7.	Enquiry Summary details	Free text field. Maximum up to 1000 characters. Data in this field will be copied to the question field in the 'Search Similar Enquiry' tab.	Yes	Text box

3.2.4.4 Integration

No.	Name	Type	Description
1.	Drug Info	External	Drug information from MIMS database.

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

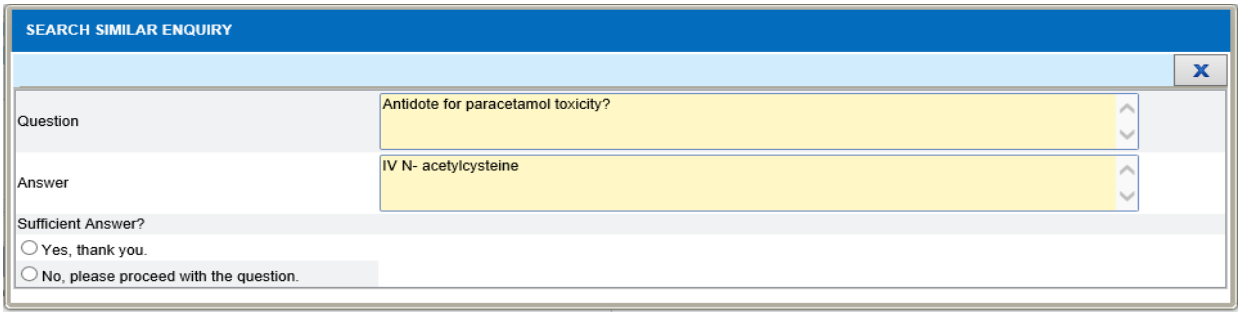
3.2.5 Drug Information – Search Similar Enquiry

3.2.5.1 Screen Design

ID	DI.SD5
Description	Search Similar Enquiry Screen

Diagram

DI.SD5 – Search Similar Enquiry Screen



DI.SD5 – Search Similar Enquiry Details Screen

Notes	• Double click on the record to open Question and Answer in details • Tick Yes, system will update enquiry as similar question and will count in FAQ • Tick No, system will allow to proceed with the question
Cross References	None

3.2.5.2 Application Business Rules

No.	Name	Description
8.	Search Similar Question	- Data in this field is copied from the question field in the 'Enquiry Summary Details' field and can be edited. - Click on Search button to search for the similar question/ answer
9.	Sufficient Answer	There are two radio button selection: • Yes – Select Yes, system will update enquiry as similar question and will count in FAQ • No - Select No, system will allow to proceed with the question

3.2.5.3 Input Validation Rules

None

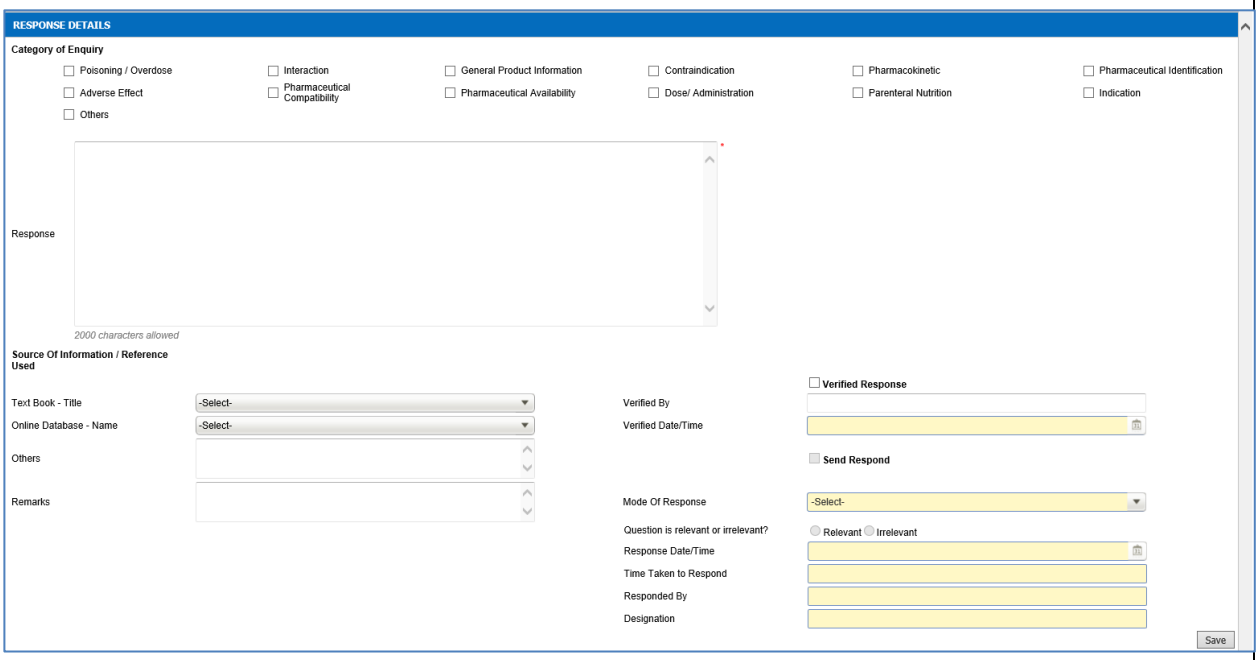
3.2.5.1 Integration

None

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3.2.6 Drug Information – Response Details

3.2.6.1 Screen Design

ID	DI.SD6
Description	Drug Information Screen (Response Details)
Diagram	
Notes	• Click on 'Save' button to save the record. • Click on 'Print' button to print the record.
Cross References	None

3.2.6.2 Application Business Rules

No.	Name	Description
1.	Send Response	Response can be send as email by referring to the email address provided in "Enquirer Details" – 'Email' (Outlook setup)

3.2.6.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Poisoning / Overdose	Checkbox to be checked if applicable	No	Checkbox
2.	Interaction	Checkbox to be checked if applicable	No	Checkbox
3.	General Product Information	Checkbox to be checked if applicable	No	Checkbox

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

4. 5.	Contraindication	Checkbox to be checked if applicable	No	Checkbox
6.	Pharmacokinetic	Checkbox to be checked if applicable	No	Checkbox
7.	Pharmaceutical Identification	Checkbox to be checked if applicable	No	Checkbox
8.	Adverse Effect	Checkbox to be checked if applicable	No	Checkbox
9.	Pharmaceutical Compatibility	Checkbox to be checked if applicable	No	Checkbox
10.	Pharmaceutical Availability	Checkbox to be checked if applicable	No	Checkbox
11.	Dose/ Administration	Checkbox to be checked if applicable	No	Checkbox
12.	Parenteral Nutrition	Checkbox to be checked if applicable	No	Checkbox
13.	Indication	Checkbox to be checked if applicable	No	Checkbox
14.	Others	Checkbox to be checked if applicable	No	Checkbox
15.	Response	Response is a free text. Maximum 1000 characters can be entered.	Yes	Text Box
16.	Respond	Respond checkbox will be available only after verified checkbox is been checked. Else, it will be disabled. To be checked if the enquiry is being responded.	No	Checkbox
17.	Response Date/Time	System date time to be defaulted. dd/mm/yyyy hh:mm format to be followed.	No	Read Only
18.	Mode of Response	Mode of response is a dropdown combo box. Dropdown to be populated from System Parameter, Category- Response Mode. List as below:	No	Drop Down

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

		- Online - Verbal - Walk-in - Letter - Phone Calls - E-mail - Fax - Sms		
19.	Time taken to respond	Auto calculated & Defaulted to the value Response System date/time - Enquiry date/time.	No	Read Only
20.	Responded By	The responded by will be defaulted to login user. The search data to be populated from User master.	No	Read Only
21.	Designation	On select of the user the designation will be defaulted.	No	Read Only
22.	Text Book Title	Text Book Title is a dropdown combo box. Dropdown to be populated from System Parameter, Category- Text Book.	No	Text Box
23.	Online Database Name	Mode of response is a dropdown combo box. Dropdown to be populated from System Parameter, Category- Online Database.	No	Text Box
24.	Others	Others are a free text field. Maximum 225 characters	No	Text Box
25.	Information Verified	Checkbox to be checked if information is verified. Verified By and Verified date/time becomes mandatory on check of this.	No	Checkbox
26.	Verified By	The Verified by will be defaulted to login user. The search data to be populated from User master.	No	Read Only
27.	Verified date/Time	System date time to be defaulted. dd/mm/yyyy hh:mm format to be followed.	No	Read Only
28.	Relevant	Checkbox to be checked if applicable	No	Checkbox
29.	Irrelevant	Checkbox to be checked if applicable	No	Checkbox
30.	Remarks	Remarks are a free text field. Maximum 100 characters	No	Text Box

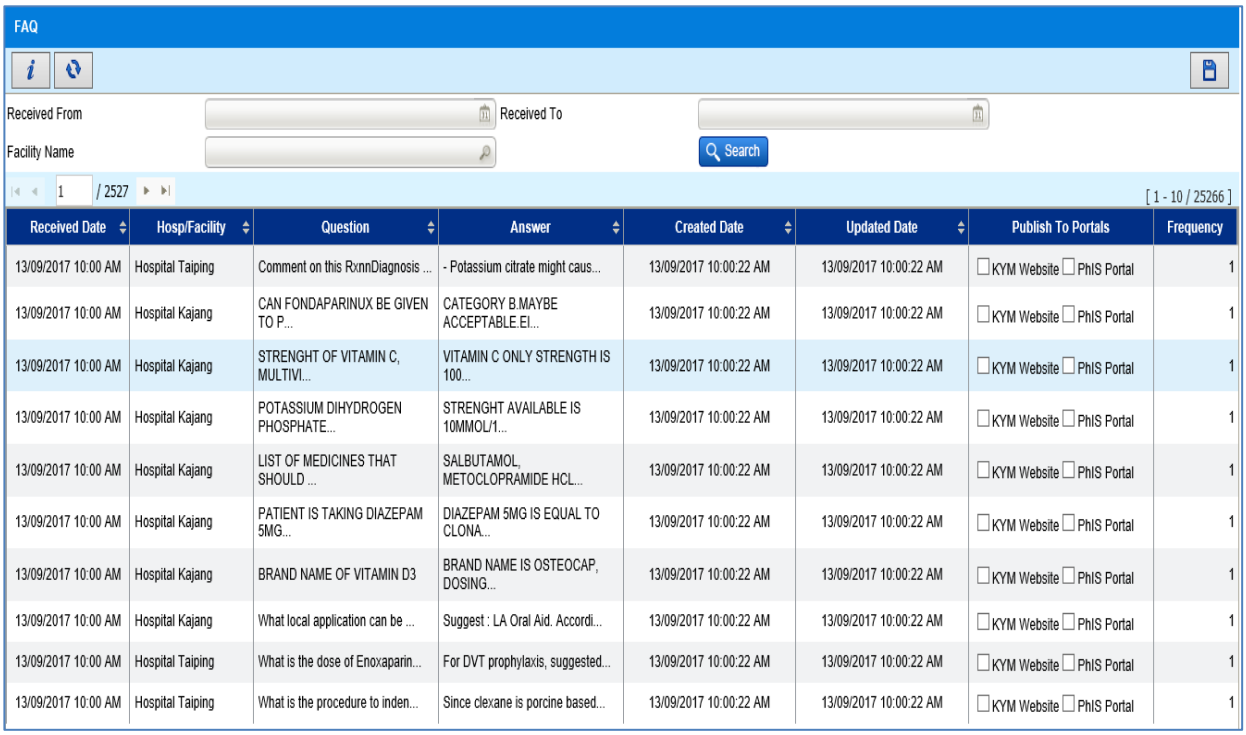
3.2.6.1 Integration

None

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

3.2.7 Drug Information – FAQ

3.2.7.1 Screen Design

ID	DI.SD7
Description	FAQ (IWP)
Diagram	
Notes	• Double click on the record to view question and answer in details • Click on 'Save' button to save the record. • Record in this screen will be display based on the latest date received • Record will received from all facility by scheduler every midnight
Cross References	None

3.2.7.2 Application Business Rules

No.	Name	Description
1.	Search Record	Click on the 'Search' button to search the existing record: i. Received Date From ii. Receive Date To iii. Facility Name
2.	Publish to Portal	There are two checkbox to be selected to publish the question / answer in the portal as below: i. PhIS Portal ii. Know Your Medicine

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

No.	Name	Description
3.	Frequency	Value in 'Frequency' is calculated based on how many Question/ Answer has been update through 'Search Similar Enquiry' function.

3.2.7.3 Input Validation Rules

None

3.2.7.1 Integration

None

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)

4. References

Document	Description/ Expansion
PHIS_CPS_URS_DICE_v1.3	User Requirement Specification document for Drug Information module

5. Acronyms

Item	Description

6. Appendix

© 2011-2018 Pharmaniaga Logistics Sdn Bhd (PLSB)