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

Pharmacy Based

User Manual
Drug Information & Consumer Education
(DICE)

© 2011-2018 Pharmacy Information System & Clinic Pharmacy System (PhIS & CPS) Project

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Table of Contents

1.0   Introduction

1.1.   Overview of PhIS

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

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

1.   Order Management

2.   Inpatient Pharmacy

3.   Outpatient Pharmacy

4.   Medication Counselling

5.   Ward Pharmacy

6.   Pharmacy Inventory

7.   Manufacturing of Cytotoxic Drug Reconstitution, Parenteral Nutrition, IV Admixture & Eye Drop , Radiopharmaceuticals and Extemporaneous

8.   Adverse Drug Reaction & Drug Allergic (ADR & DAC)

9.   Clinical Pharmacokinetics Services (TDM)

10.   Drug Information & Consumer Education (DICE)

11.   Medication Therapy Adherence Clinic (MTAC)

12.   Data Mining (PhARM)

1.2.   Purpose and Objectives

This user manual outlines the Drug Information & Consumer Education (DICE) module and its key features and functionalities. The primary objective is to guide users through the process of completing PhIS application process.

User will understand the following activities in details:

•   To place Enquiry or to record Enquiry Request

•   For the Pharmacist to verify and provide response to the enquirer
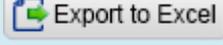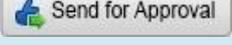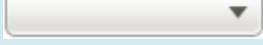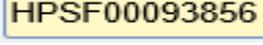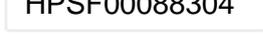
1.3.   Organised Sections

These are the sections within this document:

•   Section 1 : Introduction

•   Section 2 : Application Standard Features

•   Section 3 : Drug Information & Consumer Education (DICE)

•   Section 4 : Acronyms

•   Section 5 : Links to Clinical Modules

2.0   Application Standard Features

2.1 PhIS Legend

Standard Legend			
LOGIN	Login to PhIS	**Logout**	Logout from PhIS
Change Password	Change Login Password	**C**	Reset Login Screen
+	Expand Menu	**−**	Collapse Menu
Home	Display Home Tab	▷	Expand Module
◰	Collapse Module	☒	Close All Open Tabs
↻	Refresh Screen	**Q Search**	Search Record
+	Add/Create New Record	**i**	Show Help
🖶	Print	*	Mandatory Field
📅	Calendar Icon	🔍	Search Icon
X	Close Window	◉	Radio Button
☐	Checkbox	✏	Edit Record
⊘	Cancel	🗑	Delete Record
💾	Save	**Export to Excel**	Export and Open Report in Excel Format
+ Add Item	Add Item to the list	**🗑 Delete**	Delete Item from the list
Request	Request for Approval	**Cancel Request**	Cancel the Request
👍 Approve	Approve Transaction	**👎 Reject**	Reject Transaction
Send for Approval	Send for Approval	⏷	Dropdown Box
HPSF00093856	Automatically Display/Retrieve Box	HPSF00088304	Empty Text Box

Note

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

2.2 Latest Enhancement and Updates

Latest Functions	Page
Add filter for "Enquiry Receive By", "Verified By", "Responded By" at the searching criteria	**7**
Change Drug Information printing format	**30**

3.0   Drug Information & Consumer Education (DICE)

Overview

This module will provide a portal for the hospital community to share and acquire medical related information and advisory knowledge. It also allows user to record enquiries on drug issues and provides information back to the enquirer.

User Group

Doctor/Medical Assistant/Nurse/ Pharmacist. (subject to user assign by the facility)
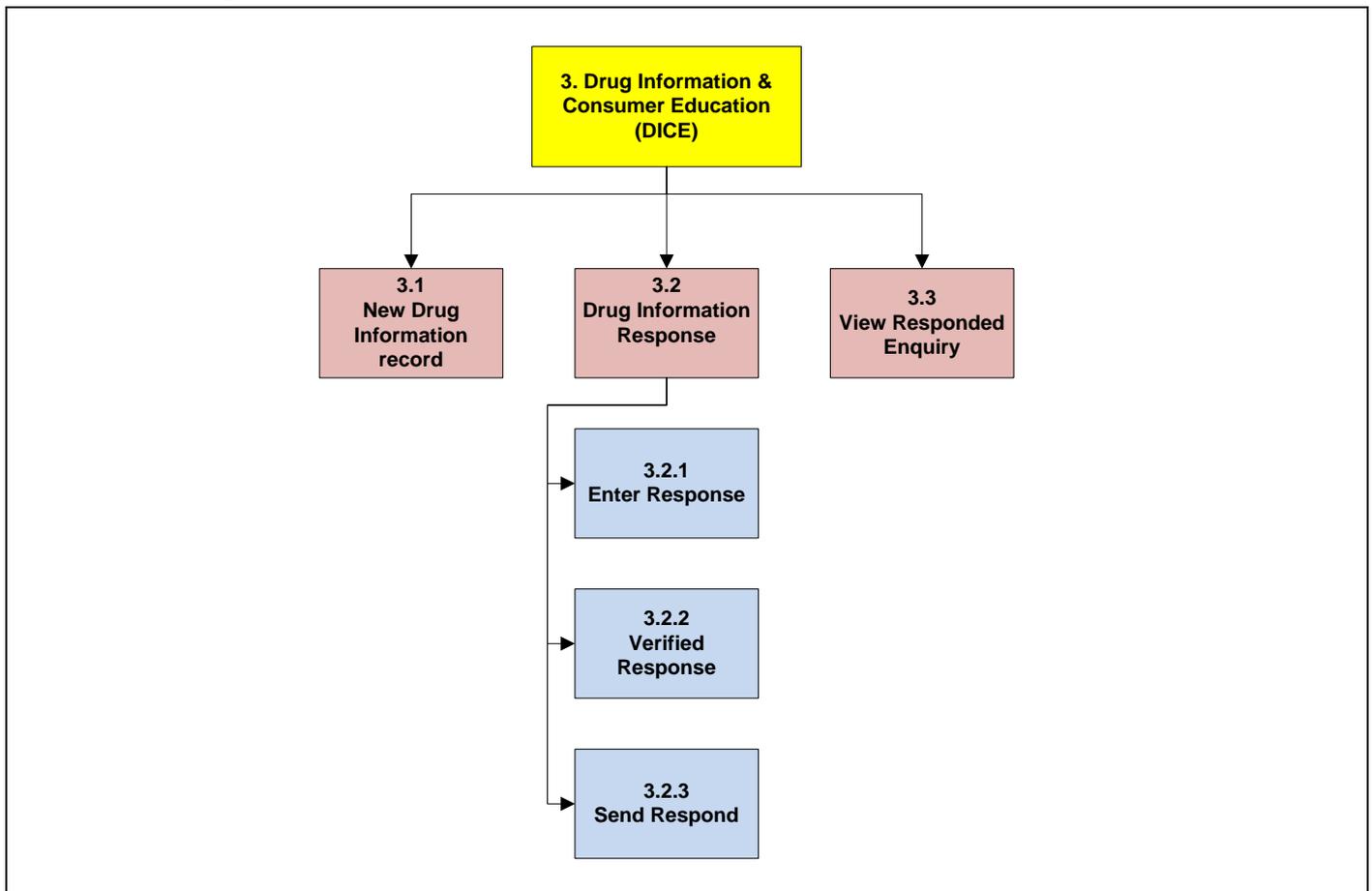
Functional Diagram

Figure 3.0

Functional Description

Drug Information & Consumer Education (DICE) comprise of three (3) main functions:

- **New Drug Information record**
  To log enquiry online from PhIS users or from the public regarding drugs such as therapeutics, adverse effects, pharmacokinetics, interactions, drug identification and availability, drug administration, pharmaceutics and pharmacy administration.

- **Drug Information Response**

  To enter and verify the response towards the enquiries received. All responded enquiries will be pushed to the HQ and to be submitted in KYM website or/and PhIS Portal.

- **View Responded Enquiry**
  Enquirer will be able to view the response from the Pharmacist regarding the enquiry made.

3.1 New Drug Information record

This function is used to create a new Drug Information record

3.1.1 Drug Information Listing Page

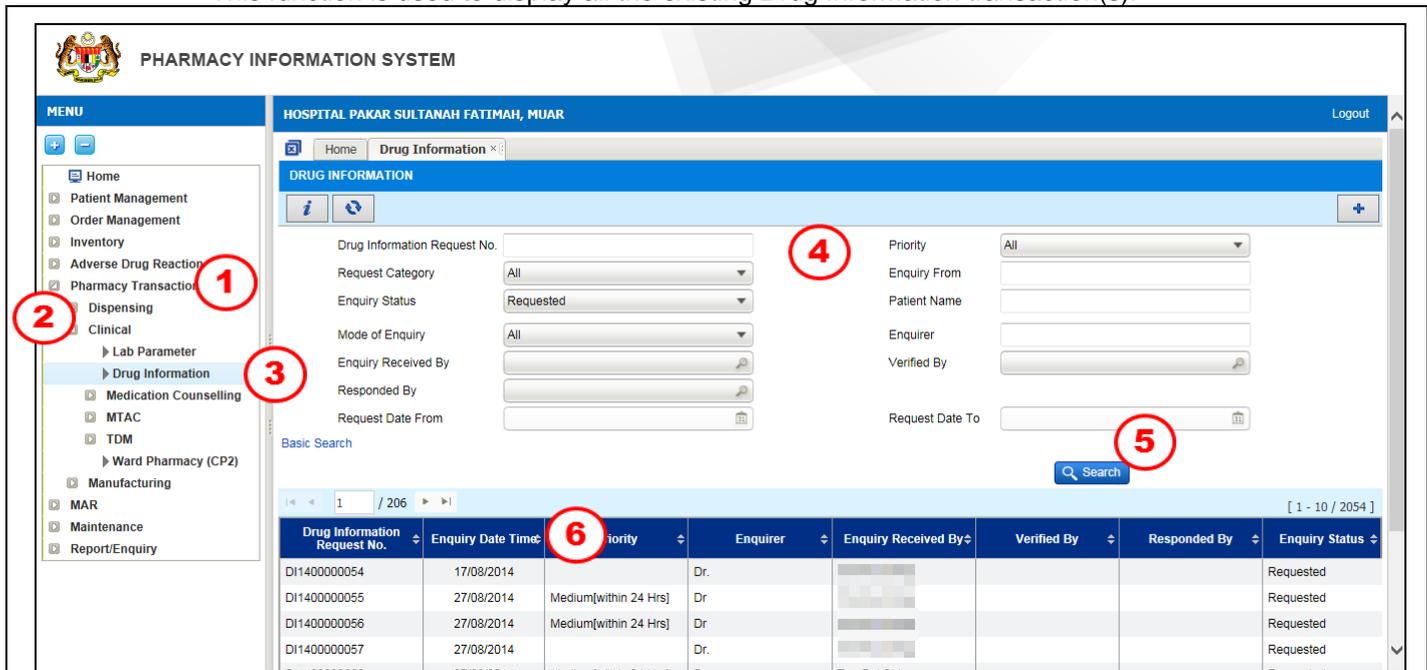This function is used to display all the existing Drug Information transaction(s).

Figure 3.1.1-1 Drug Information Listing Page

Note
- *This module will be used by all Healthcare Professional to record new enquiry about Drug Information and seek response from the DI Pharmacist in the facility.*

- *User is allowed to view a list of Drug Information records on the listing page depending on the user's access rights:*
    - *Pharmacist – Able to view all Drug Information records logged by users*
    - *Other user – Only able to view the Drug Information record(s) submitted by themselves*

STEP 1
Click on 'Pharmacy Transaction' Menu

STEP 2
Click on 'Clinical'

STEP 3
Click on 'Drug Information' sub menu

STEP 4
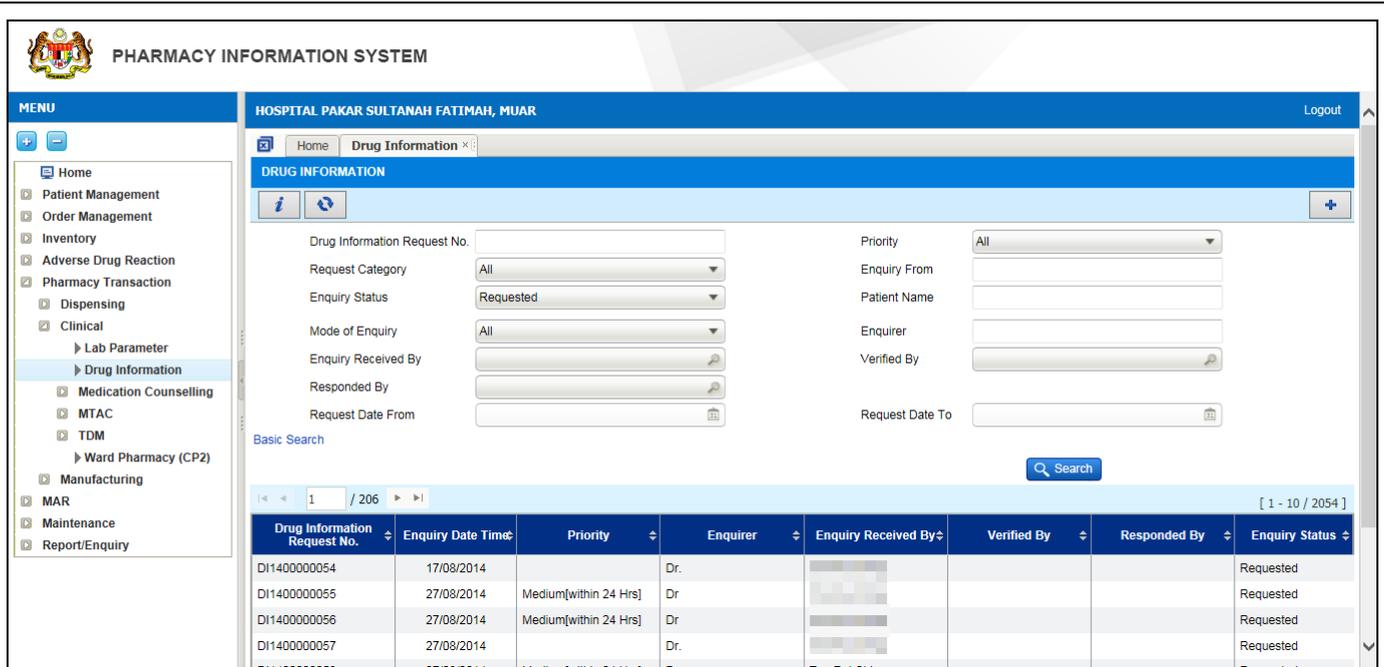To search for existing Drug Information transaction, user can search by criteria as follows:

No	Field	Description	Remark
a	Drug Information Request No.	The number is generated when user saves a newly created Drug Information record	Enter partial or full criteria for Drug Information Request No. Filter and search existing records based on the Drug Information Request No.
b	Priority	Select Priority from the drop down menu: - All	If the Priority is enter in a newly created Drug Information record, user will be able to search using

		- Medium [within 24 Hours] - Routine - Urgent [within 2 Hours]	Priority as the criteria
c	Request Category	Select Request Category from the drop down menu: - All - Adverse Effect - Contraindication - Dose/Administration - Drug - General Product Information - Indication - Others - Parenteral Nutrition - Pharmaceutical Availability - Pharmaceutical Compatibility - Pharmaceutical Identification - Pharmacokinetic - Poisoning/Overdose	If the Request Category is enter in a newly created Drug Information record, user will be able to search using Request Category as the criteria
d	Enquiry From	Enter Department/Unit Name or Facility Name	Filter and search existing records based on the Enquiry From

e	Enquiry Status	• Select Status from the drop down menu if the logged in user is the Pharmacist:
		  - All
		  - Verified
		  - Requested
		  - Responded
		• Select Status from the drop down menu if the logged in user is other than the Pharmacist:
		  - All
		  - Requested
		  - Responded
			Filter and search existing records based on the Enquiry Status

f	Patient Name	Patient's name	Allow to search by patient full name or partial

Table 3.1.1-1

<u>Note</u>
*Click on the **Advanced Search** hyperlink for advance search. The system will display additional fields as below:*

Figure 3.1.1-2 Drug Information Listing Page

No	Field	Description	Remark
a	Enquiry Received By	Search user who received the enquiry	Filter and search existing records based on the Enquiry Received By
b	Responded By	Search user who respond to the enquiry	Filter and search existing records based on the Responded By
c	Verified By	Search user who verify the response	Filter and search existing records based on the Verified By
d	Mode of Enquiry	Select Mode of Enquiry from the drop down menu: - All - Drug Info for educational/counselling - E-mail - Fax - In person - Online - Telephone - Verbal/Walk in	If the Mode of Enquiry is enter in a newly created Drug Information record, user will be able to search using Mode of Enquiry as the criteria
e	Enquirer	Enter Enquirer Name	Enter a partial or full criteria for Enquirer
f	Request Date From	Start date to be selected from calendar	Filter and search existing records based on the Request Date From
g	Request Date To	End date to be selected from calendar	Filter and search existing records based on the Request Date To

Table 3.1.1-2

STEP 5

Click on the [Search] button after input of criteria

STEP 6
Double click on the selected record and the details of a Drug Information report in PDF form will be displayed

Note

This information will be automatically displayed based on the Drug Information record selected:
- *Drug Information Request No.*
- *Enquiry Date Time*
- *Priority*
- *Enquirer*
- *Enquiry Received By*
- *Verified By*
- *Responded By*
- *Enquiry Status*

3.1.2 Record and Submit Enquiry received from Non-PhIS user

Enquiry can be received from the patient, public or other medical staff from the facility who do not have access to PhIS. However, any PhIS user will be able to access, record and send the enquiry to the Pharmacist.
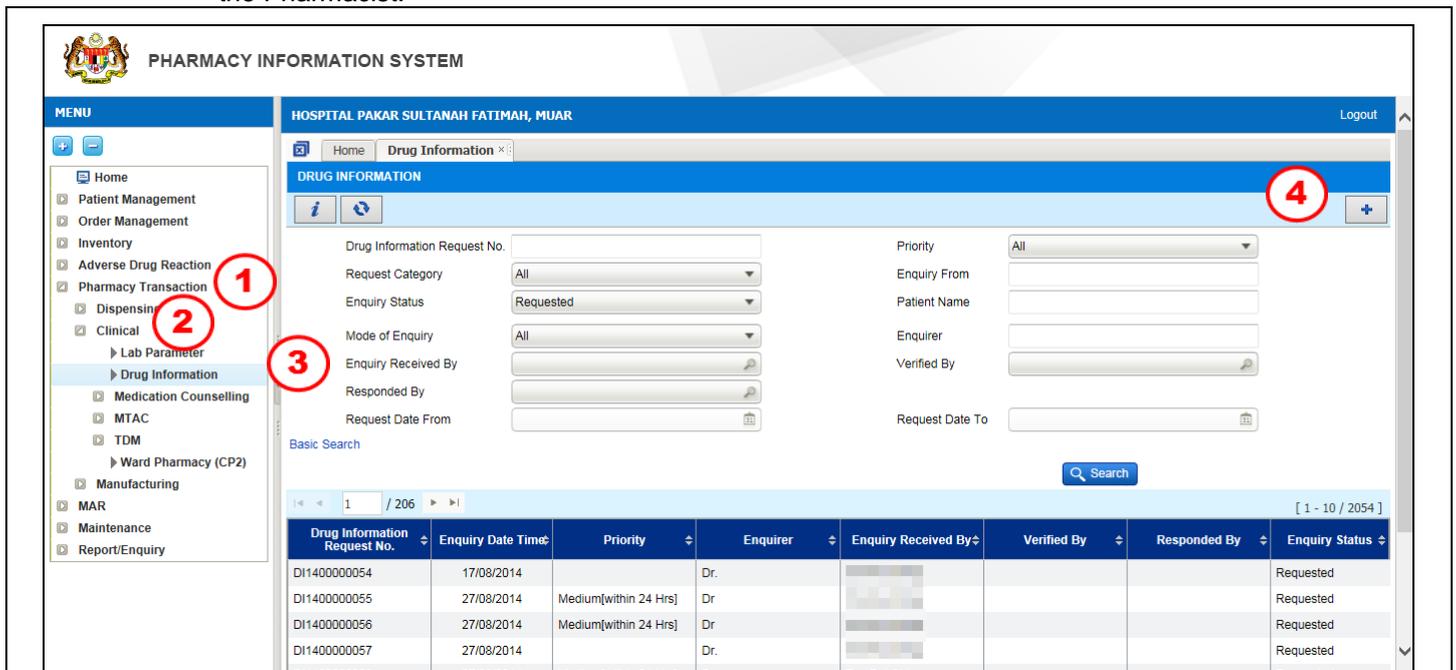
Figure 3.1.2-1 Create New Drug Information

STEP 1
Click on 'Pharmacy Transaction' Menu

STEP 2
Click on 'Clinical'

STEP 3
Click on 'Drug Information' sub menu

STEP 4

Click on the [+] button and the Drug Information screen will be displayed as shown in Figure 3.1.2-2
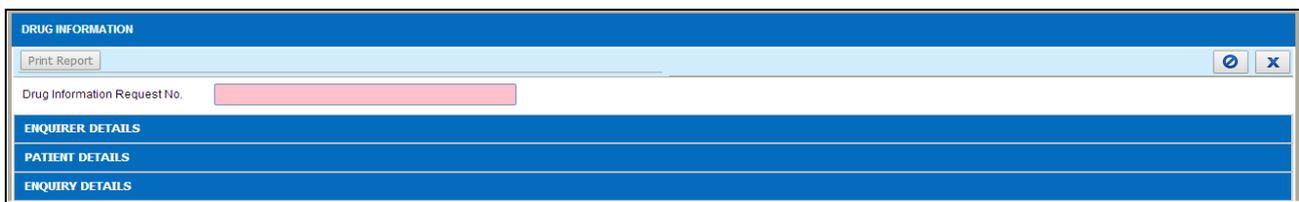
Figure 3.1.2-2 Drug Information

Note
- *There are three (3) sections that have to be filled in the Drug Information screen as show in Figure 3.1.2-2:*
  - a) *Enquirer Details*
  - b) *Patient Details*
  - c) *Enquiry Details*

a)   Enquirer Details section
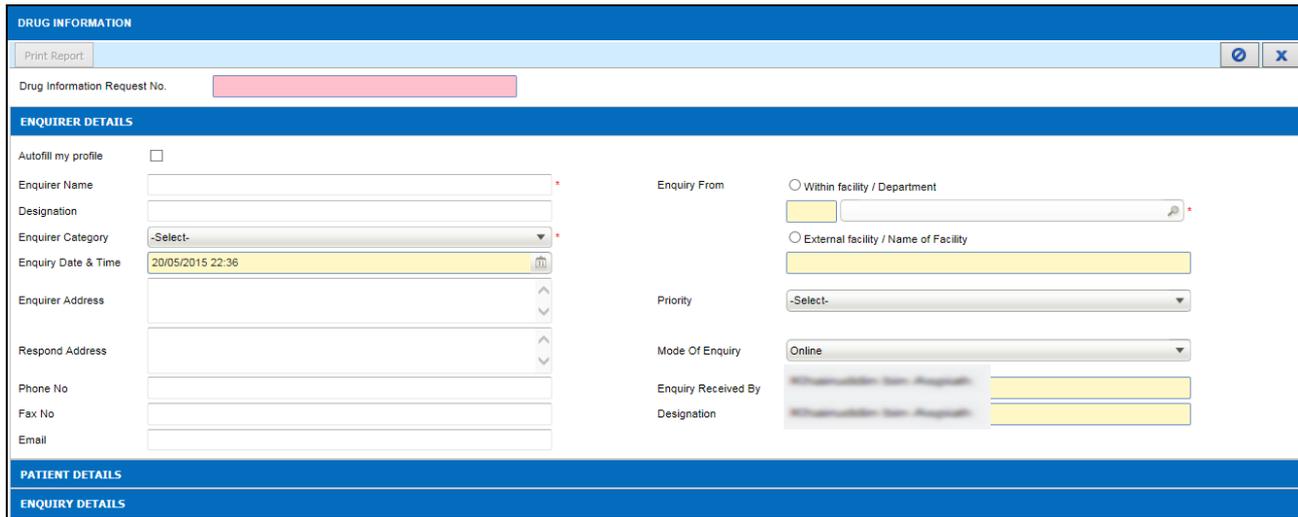
Figure 3.1.2-3 Enquirer Details section

- *This section will record the enquirer's details.*
- *Enquiry Date & Time will be defaulted to the system Date and Time.*
- *Enquiry Received By will be based on the user Login ID.*
- *Designation will be based on the user Login ID.*
- *Deselect Auto Fill My Profile checkbox if the person who is enquiring is different from the person who is logged into the system.*
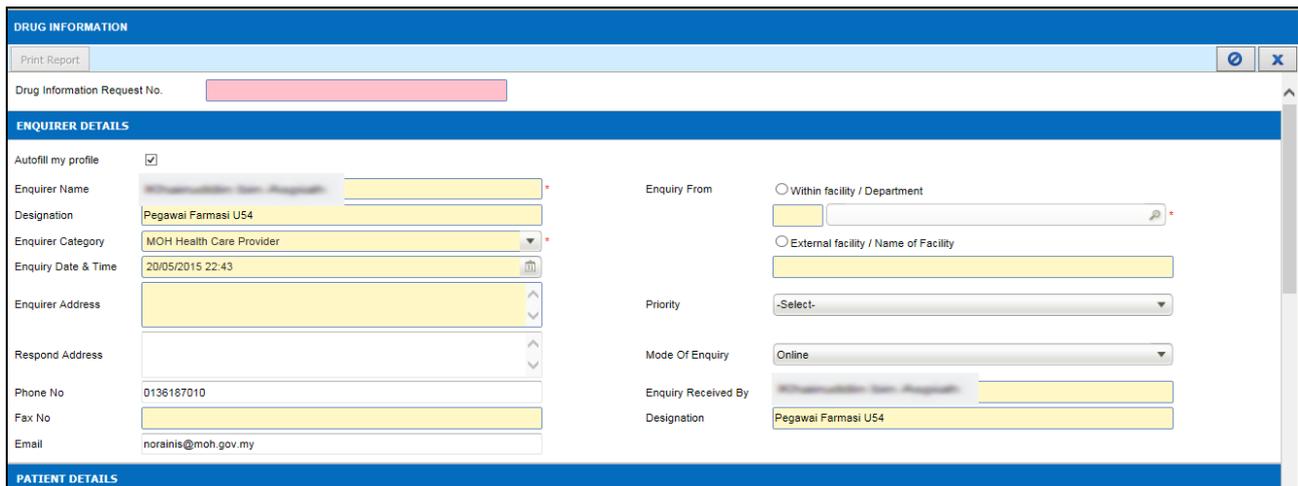
Figure 3.1.2-4 Enquirer Details section

Note

- *Check the Auto Fill My Profile checkbox. This information will be captured based on the user login ID:*
  - a) *Enquirer Name*
  - b) *Designation*
  - c) *Enquirer Category*
  - d) *Enquirer Address*
  - e) *Phone No.*
  - f) *Email*

- *Select MOH Healthcare Provider if the enquirer is a MOH staff.*
- *Select Non MOH Health Care Provider if the enquirer is not a MOH staff.*
- *Select Public if the enquirer is from the public.*
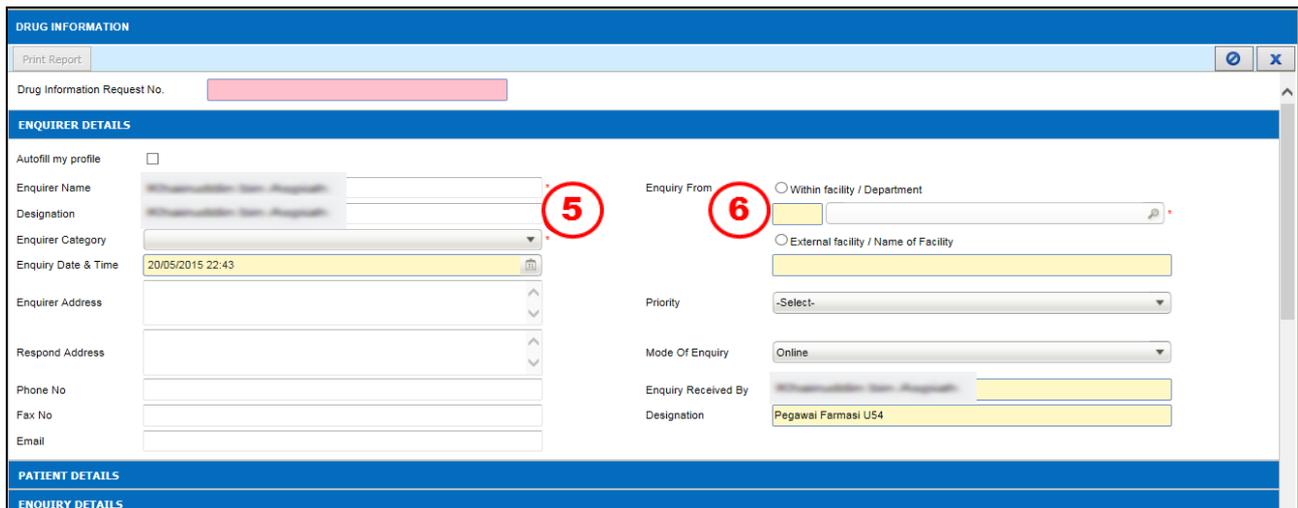
Figure 3.1.2-5 Enquirer Details section

Note
> Uncheck the **Auto Fill My Profile** checkbox if the person enquiring and the person who is logged-in to the system are not the same person

STEP 5
Enter ***Enquirer Name*** and ***Designation*** (optional). then select ***Enquirer Category*** from the dropdown box
- *MOH Health Care Provider*
- *Non MOH Health Care Provider*
- *Public*

STEP 6
Select ***Enquiry From*** 'Within facility/Department' or 'External Facility/Name of facility' radio button (optional)

Note
- *If '**Within facility/Department'** radio button is selected, select **Department** name from the dropdown box.*
- *If '**External Facility/Name of Facility'** radio button is selected, enter the **External Facility/Name of Facility.***

OPTIONAL FIELDS – Enquirer Details Section
Select and enter the below optional fields:

- ***Designation*** – *Enter a free text for the enquirer's designation.*
- ***Enquirer Address*** - *Enter a free text for the enquirer's address.*
- ***Respond Address*** - *Enter a free text for the enquirer's respond address.*
- ***Fax No.*** – *Enter Fax No. if the respond is required to be faxed over to the enquirer.*
- ***Priority*** - *This is to indicate the urgency for the Pharmacist to respond to the enquiry. Select from the drop down menu:*
  - a) *Medium [within 24 Hours]*
  - b) *Routine*
  - c) *Urgent [within 2 Hours]*

- *Select **Mode of Enquiry** from the drop down menu:*
  - a) *Drug Info for educational/counseling*
  - b) *E-mail*
  - c) *Fax*
  - d) *In person*
  - e) *Online*
  - f) *Telephone*
  - g) *Verbal/Walk in*
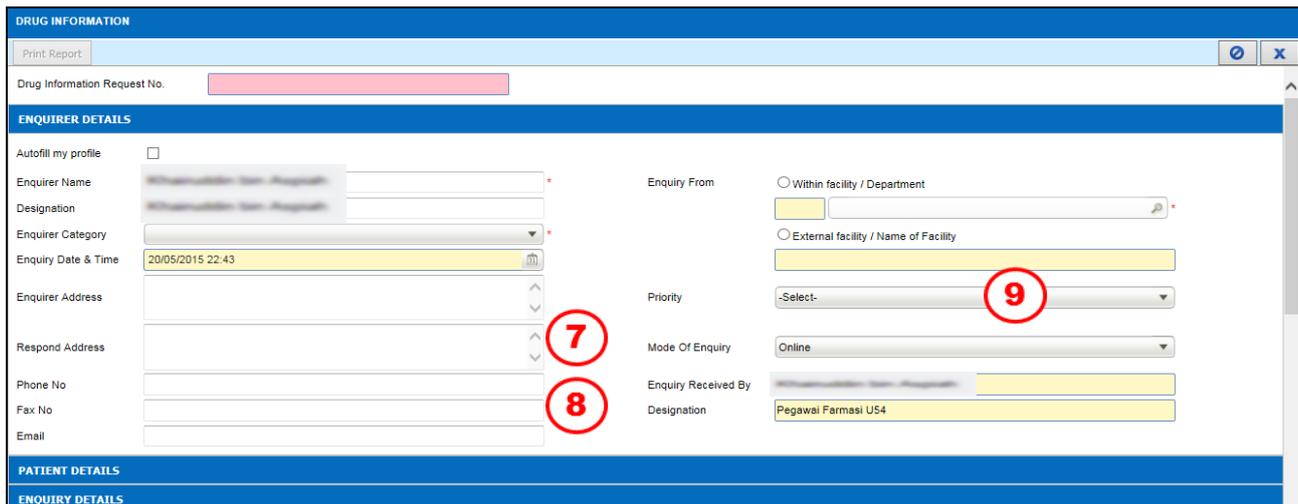
Figure 3.1.2-6 Enquirer Details

STEP 7
Enter information into these optional fields:
  a) ***Enquirer Address***
  b) ***Respond Address***
  c) ***Fax No.***

STEP 8
Enter ***Phone No.*** and ***Email***.

STEP 9
Select ***Priority*** from the dropdown box
  a) Medium [within 24 hrs]
  b) Routine
  c) Urgent [within 2 hrs]

Select ***Mode of Enquiry*** from the dropdown box (Optional)
  a) Drug Info for educational/counseling
  b) E-mail
  c) Fax
  d) In person
  e) Online
  f) Telephone
  g) Verbal/Walk in

b) Patient Details section
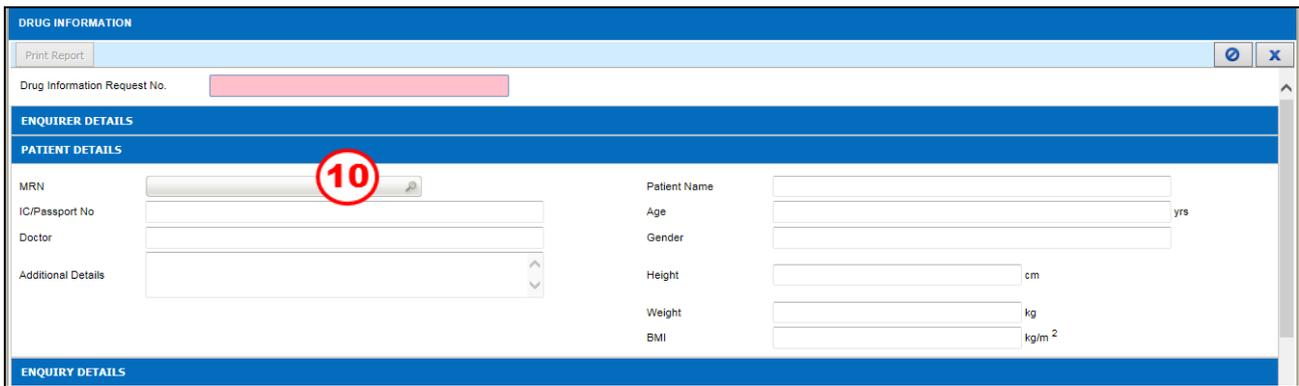
Figure 3.1.2-7 Patient Details section

STEP 10
Search **MRN**

Note
- *This section is optional to be filled if the enquiry comes from the patient registered at the facility.*

- *All fields under the Patient Details section are optional to be selected and entered*

OPTIONAL FIELDS – Patient Details Section

Select and enter the below optional fields:

- **MRN** – Search for patient's Medical Record Number. **Patient Name**, **Age**, **Gender**, **Height**, **Weight**, **BMI**, and **Doctor** details will be displayed automatically from the selected MRN (If available)

- Enter **Additional Details** of the patient if applicable.

c) Enquiry Details section
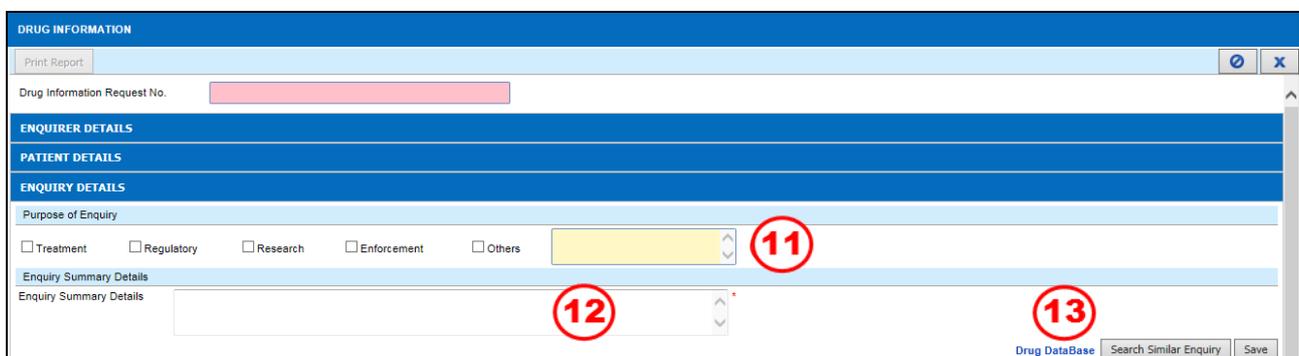
Figure 3.1.2-8 Enquiry Details section

Note
This section indicates information entered by the enquiry.

STEP 11
Select the **Purpose of Enquiry** checkbox as appropriate
- Treatment
- Research
- Regulatory

- Enforcement
- Others

Note
- *User can select more than one (1) checkbox.*
- *If more than one (1) checkbox is selected, a field will be enabled for the user to enter remarks.*
- *Alert messages as shown in Figure 3.1.2-9 will be prompted if no **Purpose of Enquiry** check box is selected.*

ERROR

ERR0021: You should describe atleast one purpose of enquiry !

OK

INFORMATION

INFO0015: Please make sure all mandatory information is filled

OK
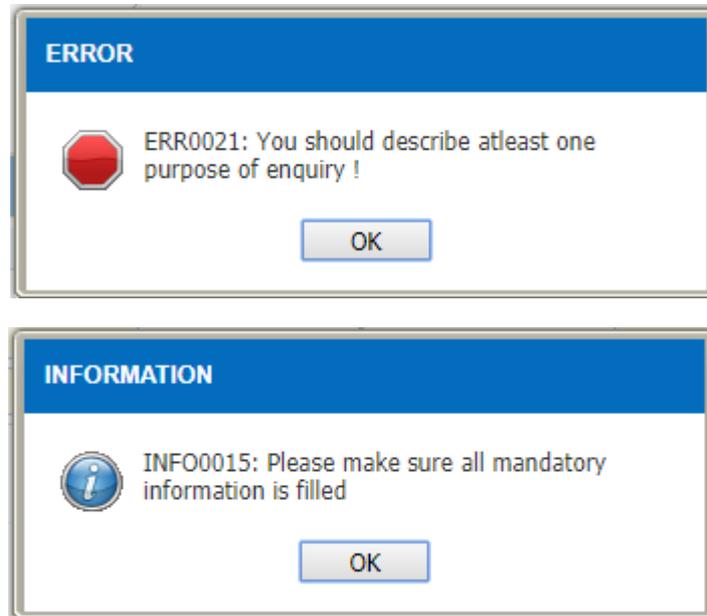
Figure 3.1.2-9 Select Purpose of Enquiry

STEP 12
Enter the *Enquiry Summary Details*

Note
Enquirer will enter the summary of the enquiry information.

OPTIONAL FIELDS – Enquiry Details Section
Select and enter the below optional fields:

STEP 13
a) Click on the *Drug Database* hyperlink to access MIMS

b) Click on the `Search Similar Enquiry` button to search for similar enquiry asked.
  - *All the similar enquiry(s) will be listed on screen as show in Figure 3.2.1-10.*

  - *User can search by entering partial or full criteria and click on the* `Search` *button. System will list down all the answer(s) related to the searched question.*

  - *If the search is not matched, no results will be displayed as shown in Figure 3.2.1-11.*
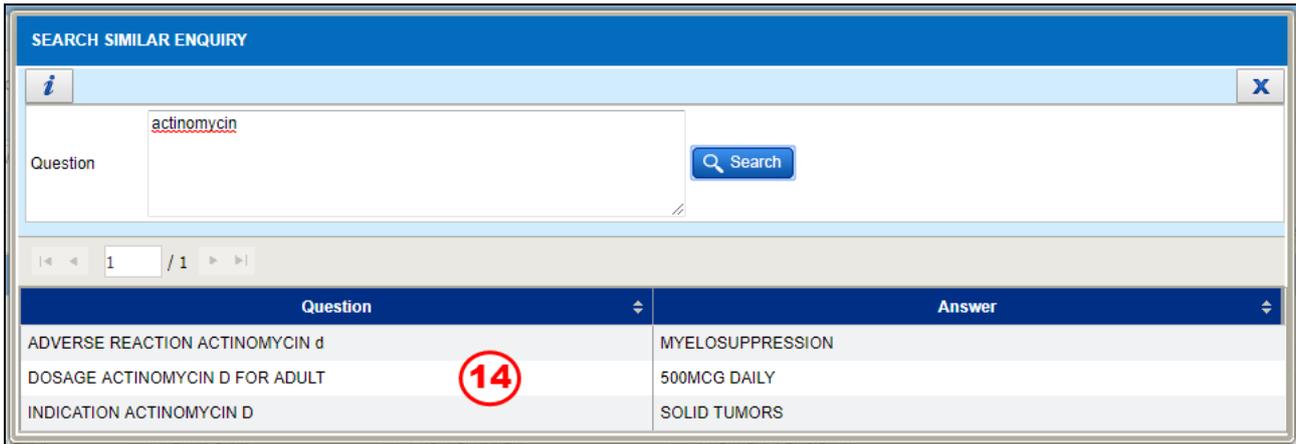
Figure 3.1.2-10 Search Similar Enquiry
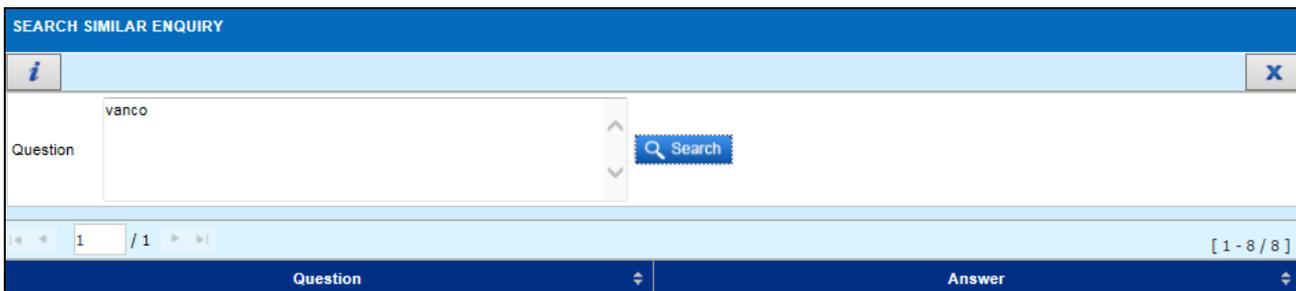
Figure 3.1.2-11 No Similar Enquiry found

STEP 14
Double click on the answer from the Search Similar Enquiry section and new window will display as shown in Figure 3.1.2-12
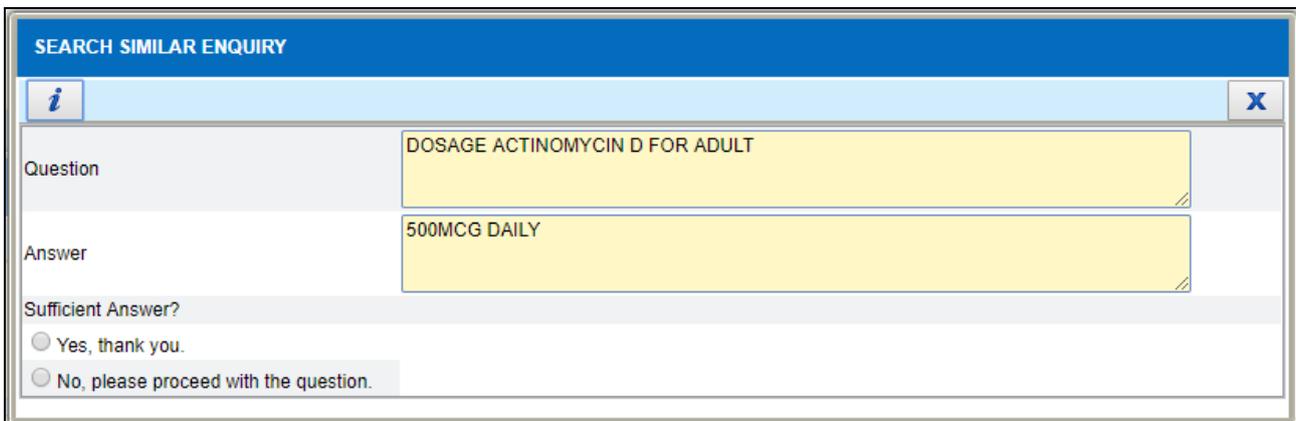
Figure 3.1.2-12 Similar Enquiry existed

Note
- *If 'Yes' option is selected from the radio button for the field **Sufficient Answer?** The Drug Information screen will be closed and the user will be redirected to the Listing Page.*

- *If 'No' option is selected from the radio button for the field **Sufficient Answer?** The user will be redirected back to the Drug Information screen to submit the enquiry for response from the Pharmacist.*
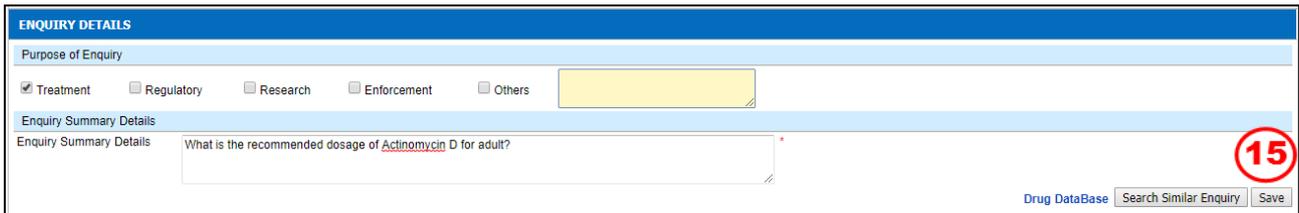
Figure 3.1.2-13 Enquiry Details section

STEP 15

Click on the Save button to send the enquiry for response to the pharmacist

Note
- *Drug Information Request No will be generated automatically for future reference.*

- *The enquiry Status will change to 'Requested' as shown in Figure 3.1.2-14*

- *Record with Status as 'Requested' cannot be opened if the Pharmacist does not verify the record. However, the report in PDF is available to be viewed/printed.*
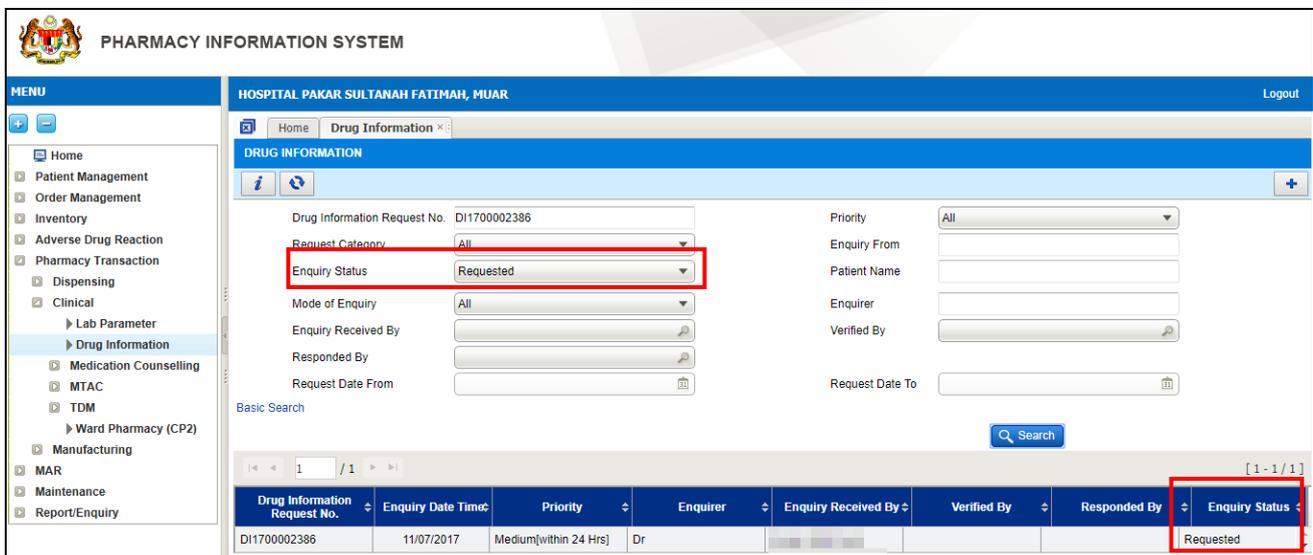
Figure 3.1.2-14 Enquiry Status = Requested

3.1.3 Record and Submit own Enquiry

This function is used to record the user's own enquiry to the Pharmacist.
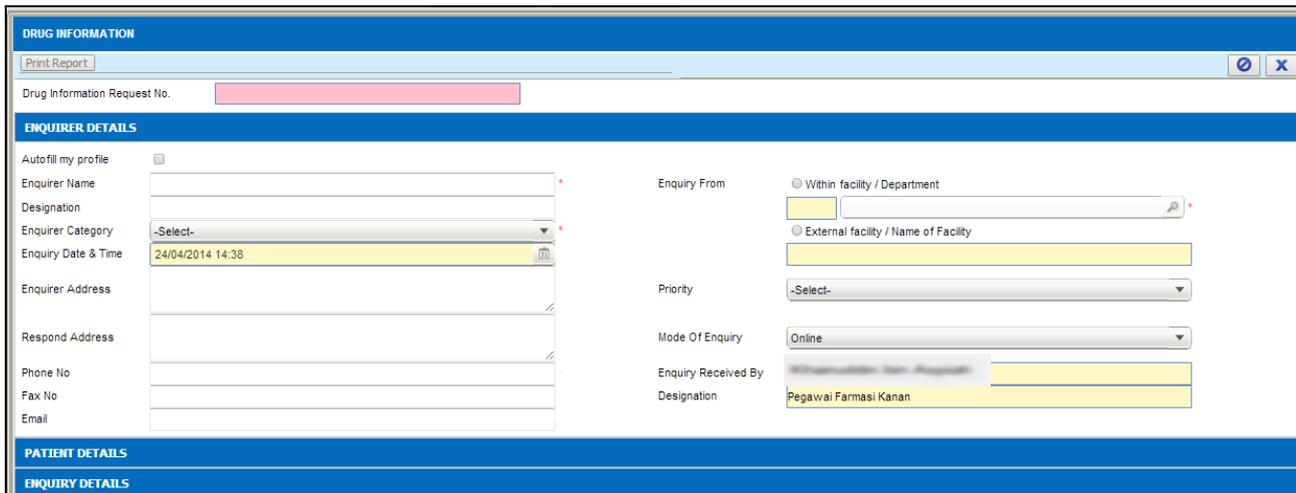
Figure 3.1.3-1 Enquirer Details section

Note

- *Repeat **STEP 1** to **STEP 4** in 3.1.2 Record and Submit Enquiry received from Non-PhIS user and system will display the screen as shown in the Figure 3.1.3-1.*

- *Select the **Auto Fill My Profile** check box; this information will be recorded from the user login ID as shown in Figure 3.1.3-2.*
    - a) *Enquirer Name*
    - b) *Designation*
    - c) *Enquirer Category*
    - d) *Enquirer Address*
    - e) *Phone No.*
    - f) *Email*
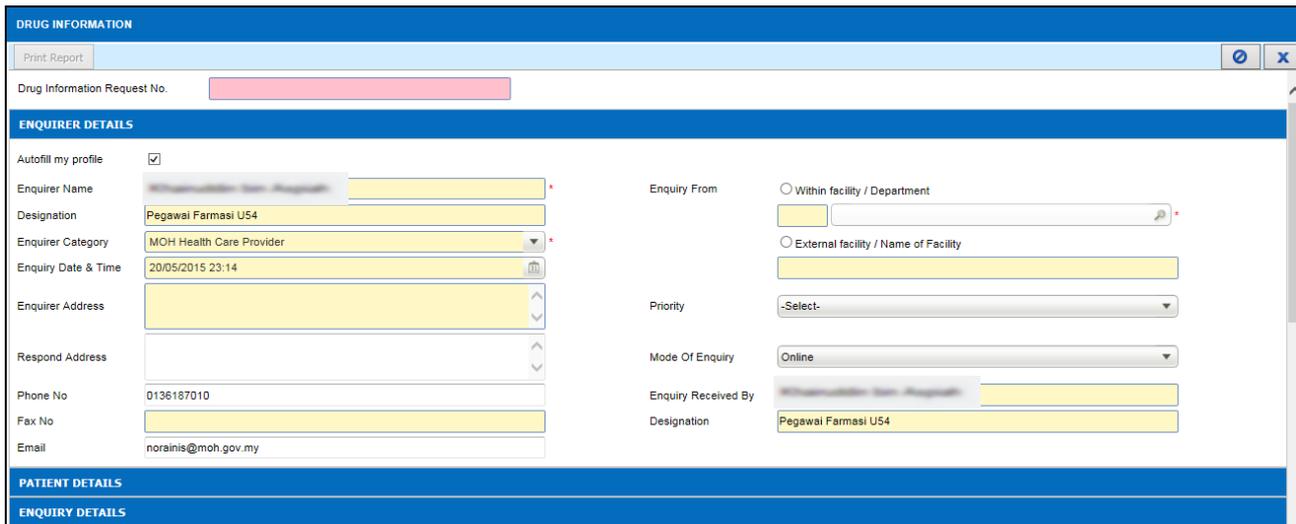
Figure 3.1.3-2 Enquirer Details

OPTIONAL FIELDS – Enquirer Details Section
Select and enter the below optional fields:

- ***Respond Address***
- ***Enquiry From***
- ***Priority***
- ***Mode of Enquiry***

<u>***Note***</u>
*Follow the same step for the **b) Patient Details section** and **c) Enquiry Details section** in 3.1.2. Record and Submit Enquiry received from Non-PhIS user.*

3.2 Drug Information Response

The Pharmacist will be able to see all the details entered by the enquirer with an additional section: Response Details

3.2.1 Enter Response

The DI Pharmacist/Assistant Pharmacist will be responsible to receive enquiries

Figure 3.2.1-1 Enquiry Status = Requested

Note
Refer to section 3.1.1 Drug Information Listing Page to search for the 'Requested' Drug Information record.

Figure 3.2.1-2 Response Details

Figure 3.2.1-3 Select at least one Category of Enquiry

STEP 1

Select at least one of the *Category of Enquiry* checkbox as appropriate. The user can select more than one category.

Note

*Alert message as shown in Figure 3.2.1-3 will be prompted if no **Category of Enquiry** check box is selected.*

STEP 2

Enter the answer/respond for the enquiry received in the ***Response field***

STEP 3
Select and enter for *Source of Information/Reference Used* (Optional)
Select *Text Book – Title*
Select *Online Database – Name*
Insert *Other* and *Remarks* Field

STEP 4

Click on the [Save] button to save the response entered
Note
- *Based on the user access granted to a login ID, the 'Response' entered has to be verified before the* **Send Respond** *check box can be selected.*
- *The* **Status** *of the Drug Information record will remain as 'Requested'.*
- *Records with Status Requested cannot be opened by the enquirer if the Pharmacist does not verify the record. However, the report in PDF format is available for viewing/printing.*

3.2.2 Verify Respond

A Drug Information record that has been responded will be sent to the Pharmacist in charge to verify the accuracy of the response.

Figure 3.2.2-1 Enquiry Status = Requested

Note

- Refer to section 3.1.1 Drug Information Listing Page to search for the 'Requested' Drug Information record.
- To function is required to verify the response entered by the previous DI pharmacist.
- The pharmacist is allowed to amend the response entered if required.

Figure 3.2.2-2 Verify Response

STEP 1

Check on the *Verified Response* checkbox to confirm that the Response information entered is sufficient and accurate
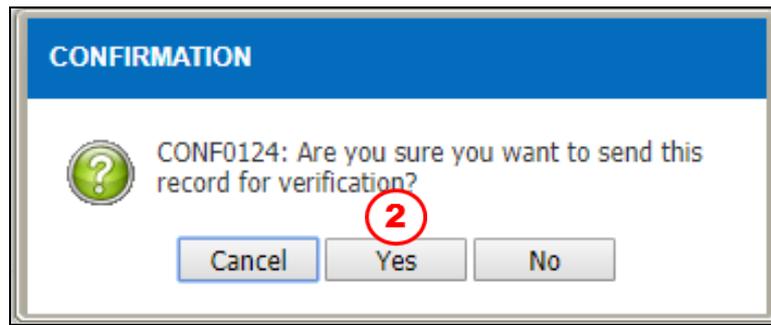
Figure 3.2.2-3 Confirmation Alert Message

STEP 2
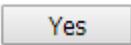
Click on the [Yes] button to confirm the verification
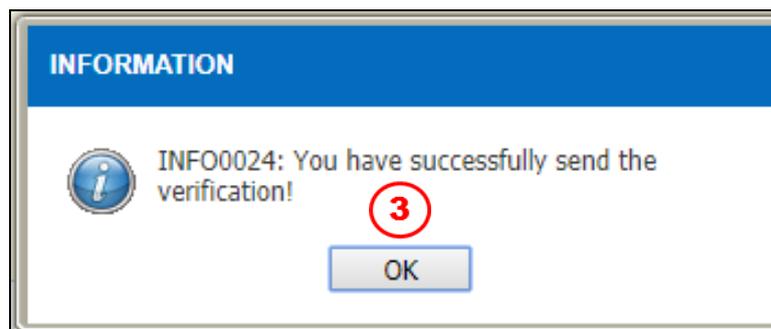
Figure 3.2.2-4 Information Alert Message

STEP 3
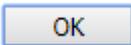
Click on the [OK] button

__Note__
- *System will record the **Verified By** based on from the user's Login ID.*
- ***Verified Date/Time** defaults to the system Date/Time.*

STEP 4

Click on the [Save] button to save the record

3.2.3 Send Respond

This function is used to send the feedback to the enquirer after the Drug Information record has been verified.

Figure 3.2.3-1 Enquiry Status = Verified

Note

- *Refer to section 3.1.1 Drug Information Listing Page to search for the 'Verified' Drug Information record.*

- *This function is required to send the verified response to the enquirer and to submit the enquiry to HQ.*
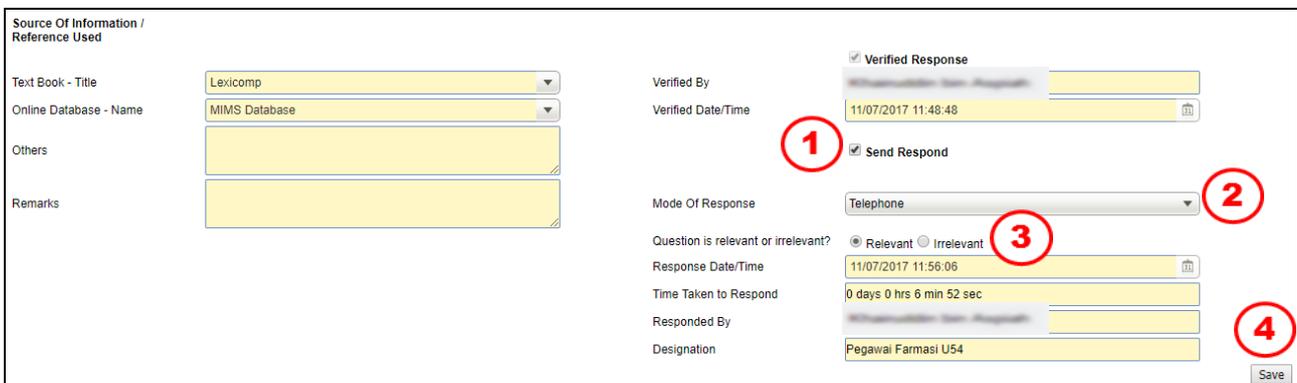
Figure 3.2.3-2 Send Respond

STEP 1
Select the **Send Respond** check box.

STEP 2
Select from the **Mode of Response** drop down box (Optional).

STEP 3
Select **Relevant** option from the **Question is relevant or irrelevant?**

Note

- *Response Date/Time will be defaulted to showing the system Date/Time. It is editable and used to it will be calculating the 'Time Taken to Respond'.*
- *The 'Responded By' and the 'Designation' will be recorded based on the user's Login ID.*
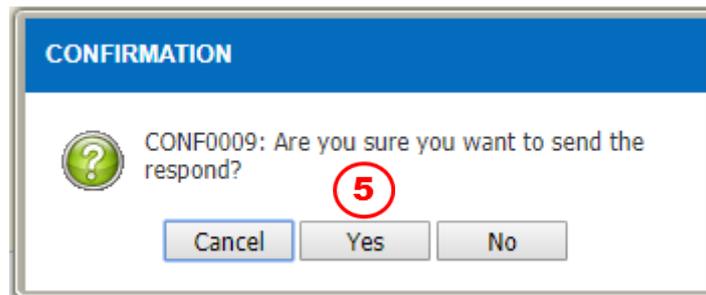
STEP 4

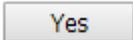Click on the ⌷Save⌷ button to save the record.

Figure 3.2.3-3 Confirmation Alert Message

STEP 5

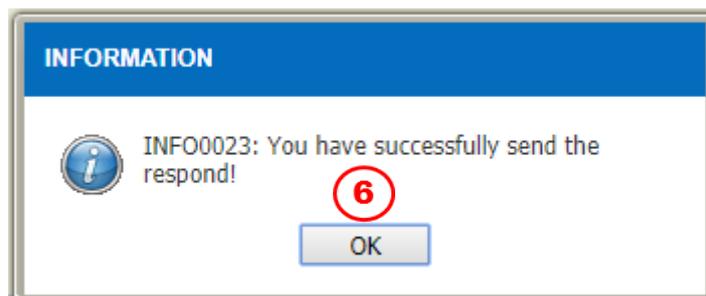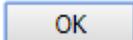Click on the [Yes] button to send the respond

Figure 3.2.3-4 Confirmation Alert Message

STEP 6

Click on the [OK] button

Note
- *The **Enquiry Status** will change to 'Responded'.*
- *'Responded' Drug Information records will be submitted to HQ. HQ will be decided whether to publish the enquiry to Know Your Medicine (KYM) Portal and/or PhIS Portal.*
- *Know Your Medicine Portal can be will be accessed by the public. However, the PhIS Portal is only accessible by the PhIS Users.*
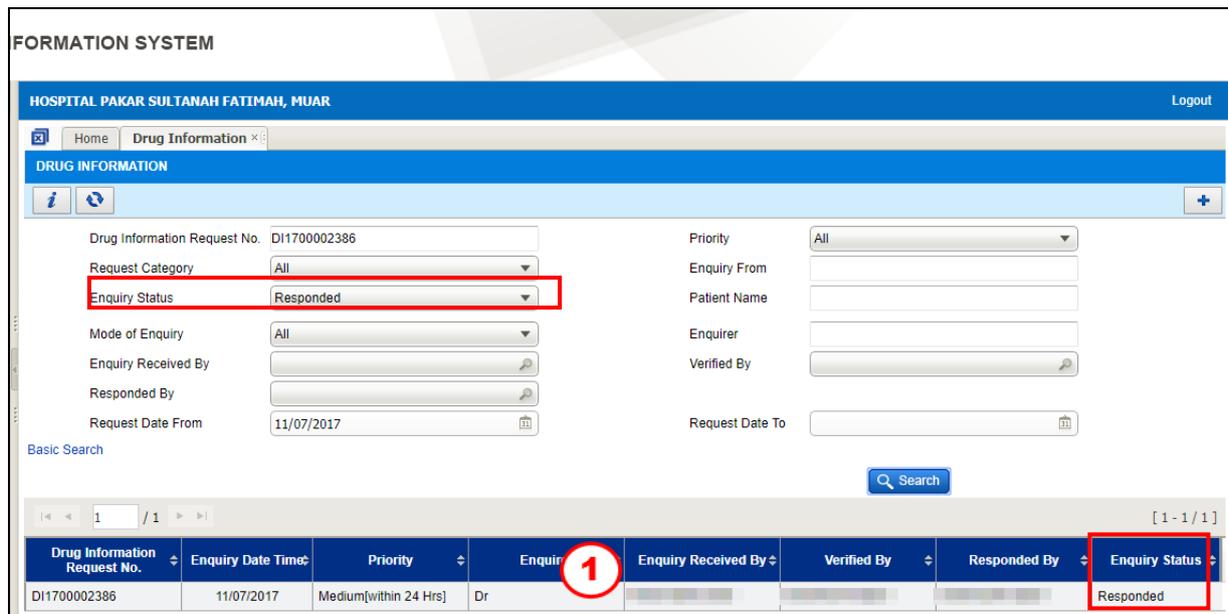

Figure 3.2.3-5 Send as Email

Note
- *Click on the Send As Email hyperlink to send an email to the enquirer via Microsoft Outlook as per Figure 3.2.3-5*
- *Microsoft Outlook and Adobe Reader will be required for this function,*
.

3.3 View Responded Enquiry

This function is used by the enquirer to view the answer responded by the Pharmacist.
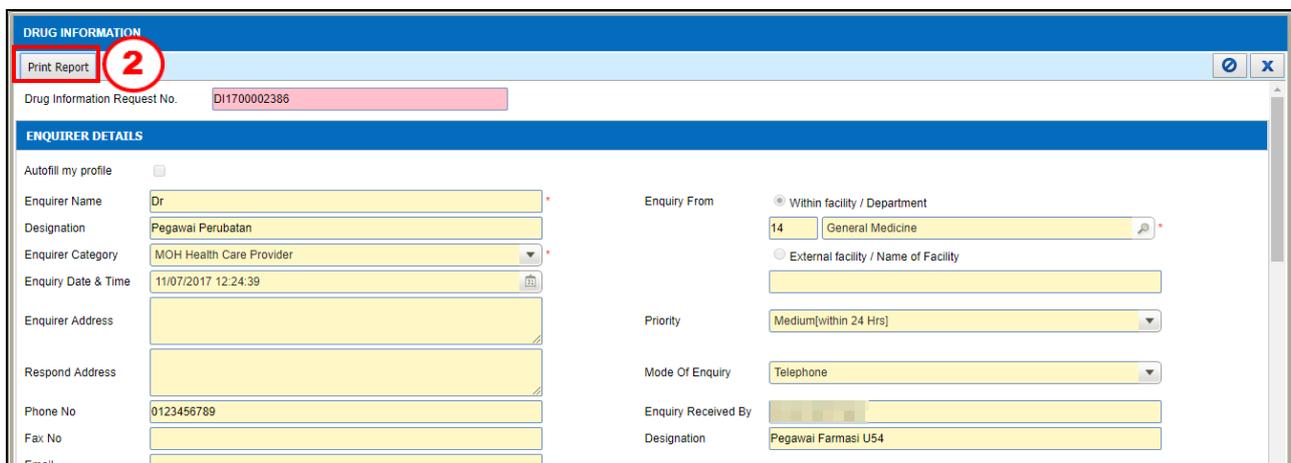

Figure 3.3-1 Enquiry Status = Responded

Note
- *When a drug information record status is Responded, enquirer will be able to view the response provided in the PDF form.*
- *Refer to section 3.1.1 Drug Information Listing Page to search for the 'Responded' Drug Information record.*

STEP 1
Double click on the record with status 'Responded' to view the response

Figure 3.3-2 Print Report

STEP 2
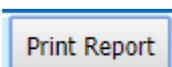
Click on the **Print Report** button to print the enquiry report.
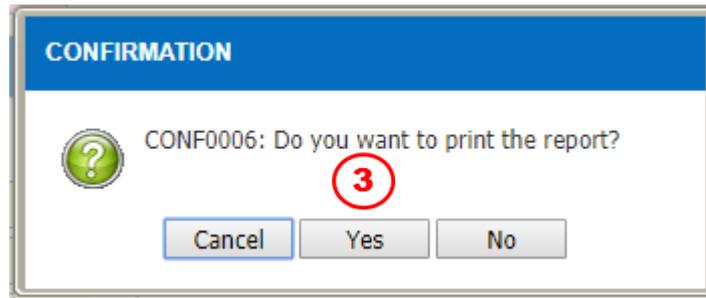
Figure 3.3-3 Confirmation Alert Message

STEP 3

Click on the [Yes] button to confirm

Note
- *Response in PDF format will be displayed as shown in Figure 3.3-4.*
- *The response entered and verified by the Pharmacist can be viewed in the Enquiry Response (Answer) field.*

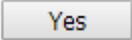Ministry of Health, Malaysia

DRUG INFORMATION - ENQUIRY RESPONSE

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR

Jalan Salleh

069521901

A. ENQUIRER DETAILS

Date of Reply/Response	Enquirer Name / Designation / Contact Details
	Dr./638

Enquirer Category   MOH Health Care Provider

Enquiry From

1) Within Facility Department	: Inpatient
2) External facility / Name of	:

B. CATEGORY OF ENQUIRY

	Poisoning / Overdose		General Product Information		Contraindication		Pharmacokinetic		Adverse Effect
	Drug		Indication		Pharmaceutical Identification		Pharmaceutical Compatibility	✓	Dose/ Administration
	Pharmaceutical Availability		Parenteral Nutrition		Others				

C. MODE OF RESPONSE

	Drug Info		Email		Fax		In Person		Online		Telephone

D. SOURCE OF INFORMATION / REFERENCE USED

	BNF		Harrison		Lexicomp		MIMS
	Martindale	✓	Lexicomp Database		MIMS Database		Martindale Database

E. ENQUIRY SUMMARY (QUESTION) & ENQUIRY RESPONSE (ANSWER)

Question :Renal dose of omeprazole

Answer :Omeprazole generally not recommended for ranl impairment patients.

Received By : Tan Rui Ching	Designation	:
Verified By : Noraini bt Saari	Verified Date/ Time	: 04/11/2014 11:22:03 AM
Response By :	Response Date/ Time	:

Figure 3.3-4 Drug Information – Enquiry Report

4.0   Acronyms

Abbreviation	Definition
MOH	Ministry of Health
PhIS	Pharmacy Information System
CPS	Clinical Pharmacy System
DICE	Drug Information and Consumer Education
MRN	Medical Record Number

5.0   Links to Clinical Modules

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