



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

User Manual Parenteral Nutrition (PN)

<p>Version : 9th EDITION Document ID : PB_U.MANUAL_PN</p>
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1. Introduction

1.1 Overview of Phis

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

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

1. Order Management
2. Inpatient Pharmacy
3. Outpatient Pharmacy
4. Medication Counselling
5. Ward Pharmacy
6. Pharmacy Inventory
7. Manufacturing of Cytotoxic Drug Reconstitution, Parenteral Nutrition, 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 Parenteral Nutrition module and its key features/functionality. The primary objective is to help guide user through the process of completing PhIS application process.

User will understand the following activities in details:

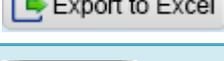
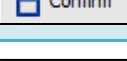
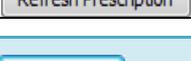
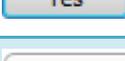
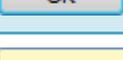
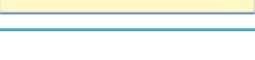
1.3 Organised Sections

These are the sections within this document:

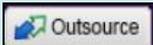
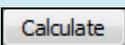
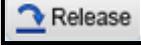
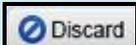
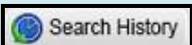
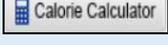
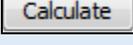
- Section 1 : Introduction
- Section 2 : Application Standard Features
- Section 3 : Parenteral Nutrition
- Section 4 : Acronyms

2. Application Standard Features

2.1 PhIS Legend

	Login to PhIS		Logout from PhIS
	Change Login Password		Reset Login Screen
	Expand Menu		Collapse Menu
	Display Home Tab		Expand Module
	Collapse Module		Close All Open Tabs
	Refresh Screen		Search Record
	Add/Create New Record		Show Help
	Print	*	Mandatory Field
	Calendar Icon		Search Icon
	Close Window		Radio Button
<input type="checkbox"/>	Checkbox		Edit Record
	Cancel		Delete Record
	Save		Export and Open Report in Excel Format
	Confirm Button		Delete Item from the list
	Refresh Prescription		Yes Button
	OK Button		Dropdown Box
	Automatically Display/Retrieve Box		Empty Text Box



Parenteral Nutrition Module Legend			
 Verify	Verification Prescription	 Prepare	Preparation Prescription
 Dispense	Dispensing	 Label	Edit and Print Label
 Outsource	Outsource Product	 Calculate	Calculate
 Worksheet	Generate Worksheet	 Release	Release Batch
 Discard	Discard Batch	 Search History	Search History
 Nutritional Assessment	Nutritional Assessment	 Cancel	Cancel Button
 Calorie Calculator	Calorie Calculator	 Calculate	Calculate
 Hold	Hold Button	 Auto Allocation	Auto allocation
 Send Outsource Request	Sent Outsource Request		

Note

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

3. Parenteral Nutrition (PN)

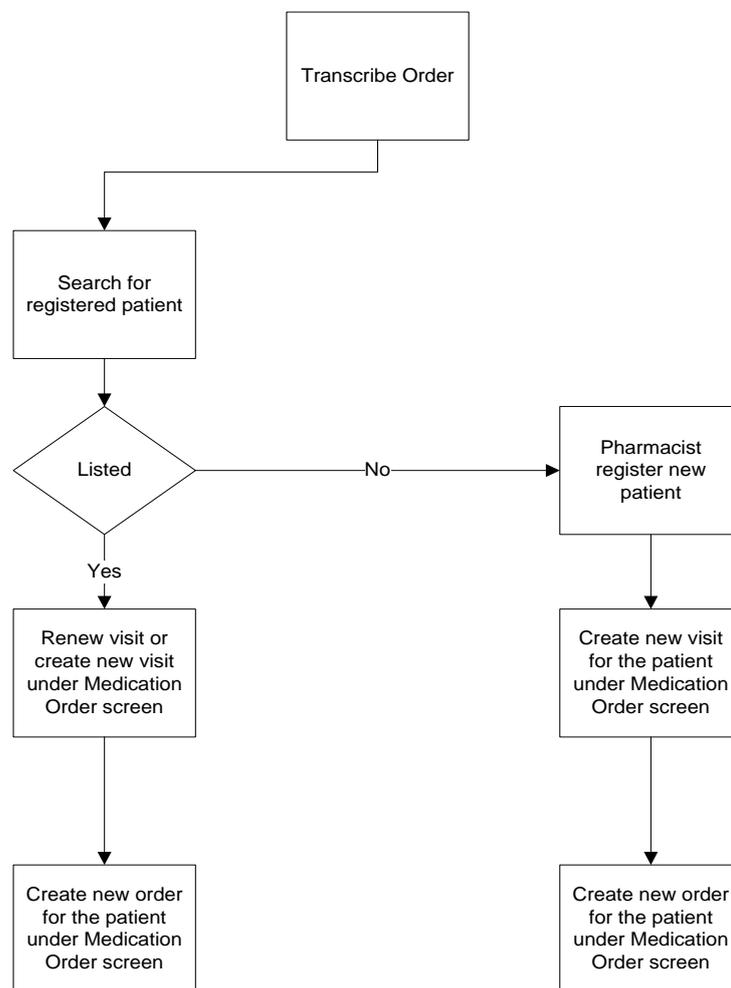
Overview

The Parenteral Nutrition (PN) module include implementing safe, organised and efficient drug-dispensing systems which essential for controlling costs and assuring that the medical prescription is safely followed as requested within the appropriate deadline. An appropriate dispensing system is an important ally for the prevention or reduction of medication errors by helping to minimize dispensing error opportunities in a pharmacy. At present, there are various types of dispensing systems for medical prescriptions within a hospital.

User Group

This module is intended for Authorized Pharmacist

Transcribe Order



Transcribe Order Process Flow

Functional Diagram

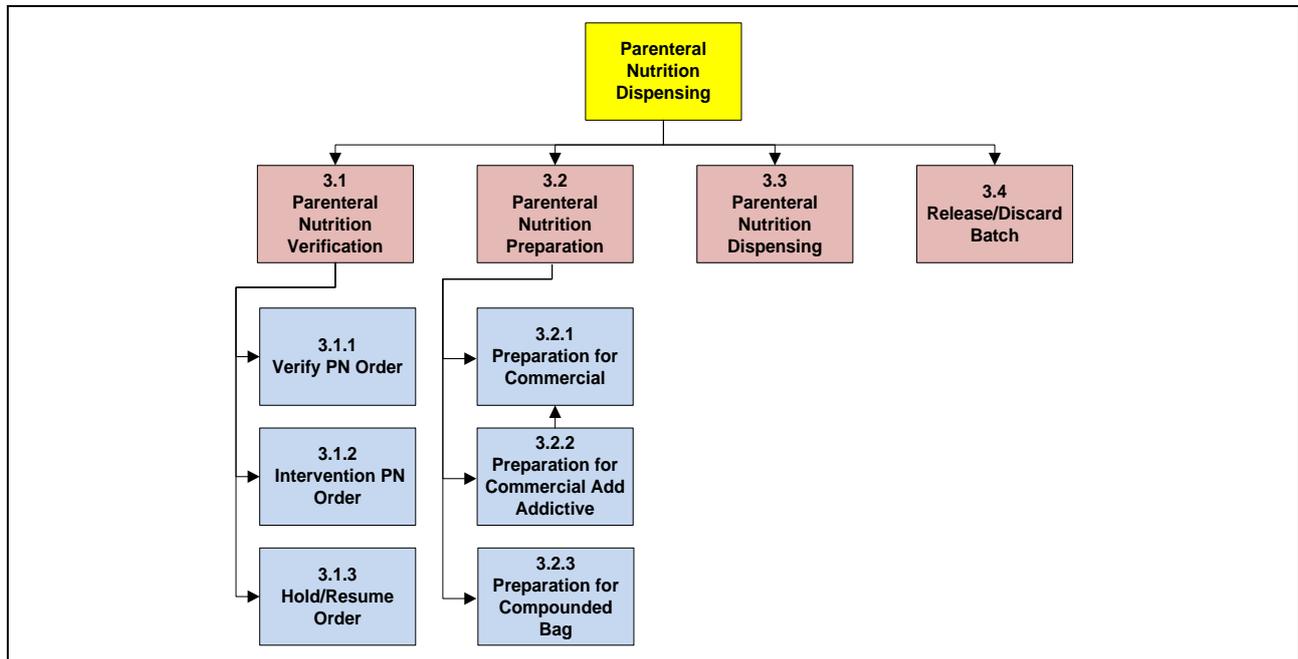


Figure 3.0-1

Functional Description

Parenteral Nutrition (PN) comprises of four (4) main functions:

- Verification**
 Verification is for pharmacist to verify the prescriptions received from transcribe order. This process is mandatory for all prescriptions receive before the user can proceed with dispensing preparation
- Preparation**
 The prescription and the drug preparation are made in the system that may integrate with inventory system. Professionals access system data directly with no need to send files or manual drug labeling.
- Dispensing**
 The prescription and the dispensing report are made in the system that may integrate with inventory system.
- Release/Discard Batch**
 Allow the user to release/discard the drug reserved for the patient back into inventory. User need to release this drug in order for it to be available in the drug inventory list.

3.1 Search Registered Patient

To view an existing patient record, please perform the steps below.

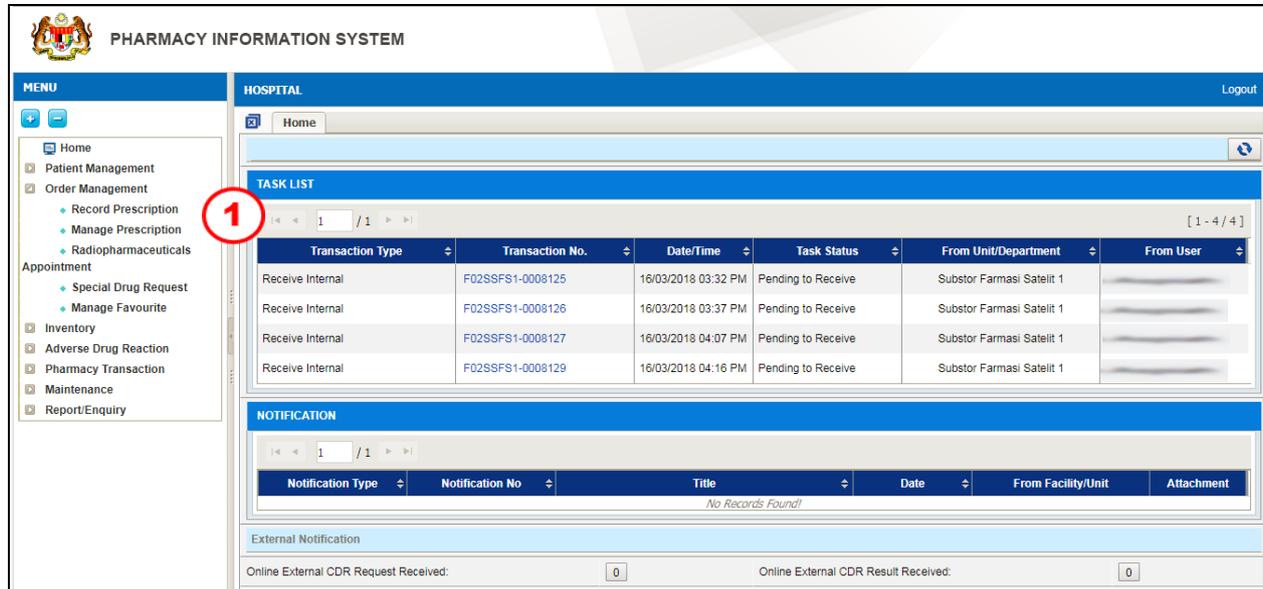


Figure 3.1-1 PhIS Home page

This page is used to search for a registered patient

STEP 1

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



Figure 3.1-2 Medication Order

STEP 2

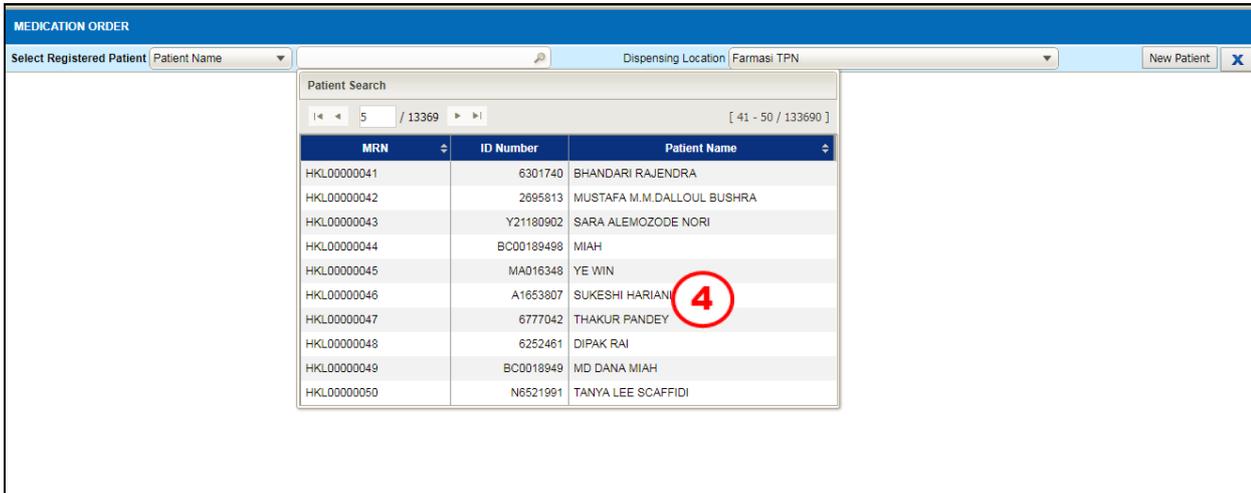
Select registration type from dropdown box

STEP 3

Click on the  button to search for a registered patient based on the type selected

Note

If the patient is not registered, click on the  button and the 'Patient Registration' screen will be displayed.



MRN	ID Number	Patient Name
HKL00000041	6301740	BHANDARI RAJENDRA
HKL00000042	2695813	MUSTAFA M.M.DALLOUL BUSHRA
HKL00000043	Y21180902	SARA ALEMOZODE NORI
HKL00000044	BC00189498	MAIAH
HKL00000045	MA016348	YE WIN
HKL00000046	A1653807	SUKESHI HARIANI
HKL00000047	6777042	THAKUR PANDEY
HKL00000048	6252461	DIPAK RAI
HKL00000049	BC0018949	MD DANA MIAH
HKL00000050	N6521991	TANYA LEE SCAFFIDI

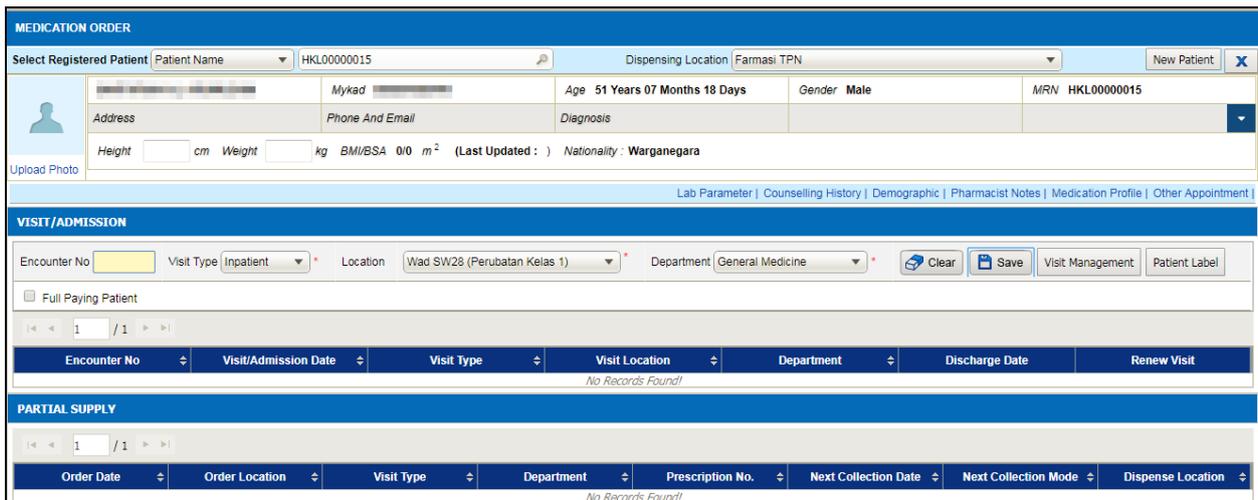
Figure 3.1-3 Search Patient

STEP 4

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

Note

- Click on the 'Renew Visit' hyperlink to renew a visit for the same location.
- Select the 'Visit Type' and 'Location' to create a new visit.
- Click on the  button to access to 'Visit Management' screen.



MEDICATION ORDER

Select Registered Patient: Patient Name [HKL00000015] Dispensing Location: Farmasi TPN [New Patient X]

Mykad: [REDACTED] Age: 51 Years 07 Months 18 Days Gender: Male M/RN: HKL00000015

Address: [REDACTED] Phone And Email: [REDACTED] Diagnosis: [REDACTED]

Height: [REDACTED] cm Weight: [REDACTED] kg BMI/BSA: 0/0 m² (Last Updated:) Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT/ADMISSION

Encounter No: [REDACTED] Visit Type: Inpatient Location: Wad SW28 (Perubatan Kelas 1) Department: General Medicine [Clear] [Save] [Visit Management] [Patient Label]

Full Paying Patient

1 / 1

Encounter No	Visit/Admission Date	Visit Type	Visit Location	Department	Discharge Date	Renew Visit
No Records Found!						

PARTIAL SUPPLY

1 / 1

Order Date	Order Location	Visit Type	Department	Prescription No.	Next Collection Date	Next Collection Mode	Dispense Location
No Records Found!							

Figure 3.1-4 Medication Order Screen



MEDICATION ORDER

Select Registered Patient: Patient Name [HKL0000015] Dispensing Location: Farmasi Klinik Pakar [New Patient X]

Mykad: [REDACTED] Age: 51 Years 07 Months 18 Days Gender: Male MRN: HKL0000015

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

Height: [REDACTED] cm Weight: [REDACTED] kg BMI/BSA: 0/0 m² [Update] (Last Updated:) Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT/ADMISSION

Encounter No: [REDACTED] Visit Type: Outpatient * Location: [REDACTED] * Department: [REDACTED] * [Clear] [Save] [Visit Management] [Patient Label]

Full Paying Patient

Encounter No	Visit/Admission Date	Visit Type	Visit Location	Department	Discharge Date	Renew Visit
0001	22/03/2018	Inpatient	Wad SW28 (Perubatan Kelas 1)	General Medicine		Renew Visit

PARTIAL SUPPLY 5

Order Date	Order Location	Visit Type	Department	Prescription No.	Next Collection Date	Next Collection Mode	Dispense Location
No Records Found!							

Figure 3.1-5 Visit/Admission Detail

STEP 5

Double-click on the selected visit and the details will be displayed as per Figure 3.1-6

MEDICATION ORDER

Select Registered Patient: All [HKLM00066884] Dispensing Location: Farmasi Klinik Pakar - Rx Filling [New Patient X]

Mykad: [REDACTED] Age: 78 Years 09 Months 18 Days Gender: Male MRN: HKLM00066884

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

Height: [REDACTED] cm Weight: [REDACTED] kg BMI/BSA: 0/0 m² [Update] (Last Updated:) Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT/ADMISSION

Encounter No: 0007 Visit Type: Inpatient * Location: Ward 8 - Medical (Male) * Department: General Medicine * [Clear] [Visit Management] [Patient Label]

VISIT RECORD

Queue Series: Normal Queue No: [REDACTED] Discharge Medication Original Prescription Serial Number: [REDACTED] Clinic TCA: [REDACTED]

NORMAL ORDER - DRUG DETAILS [View Order] [Draft] [Confirm]

Total Price: RM 0.00

Alert	Drug Name	Order Details	Order Qty	Drug Info
-------	-----------	---------------	-----------	-----------

Original Prescriber Name: [REDACTED] [Advanced Search]

Drug: [REDACTED] Own Medication Ward Stock Patient Require Counselling

Dosage: [REDACTED]

Admin Route: [REDACTED]

Frequency: [REDACTED] [Dosage Schedule]

Duration: [REDACTED]

Start Date / Time: 29/07/2019 11:15 AM [Calendar]

End Date / Time: 29/07/2019 11:15 AM [Calendar]

Order Quantity: [REDACTED]

Drug Indication: [REDACTED]

Drug Remarks: [REDACTED]

Available Qty: [REDACTED]

[Add] [Modify] [Clear]

Figure 3.1-6 Medication Order Detail

3.2 New Patient Registration

This page is used to register new patient

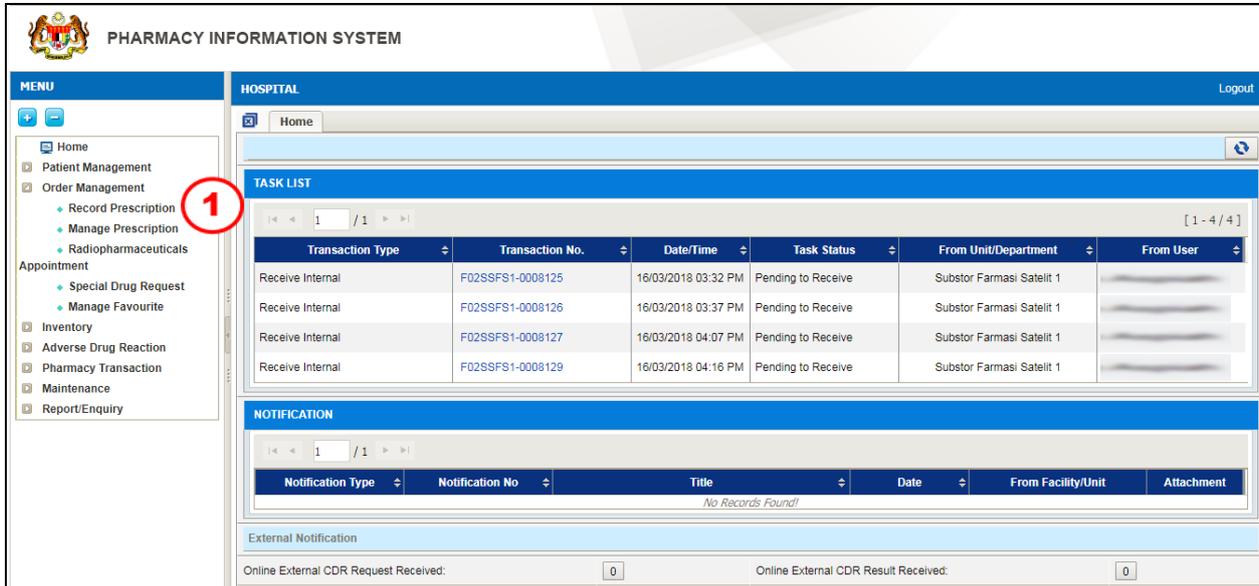


Figure 3.2-1 PHIS Home Page

To register a new patient, please perform the steps below

STEP 1

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

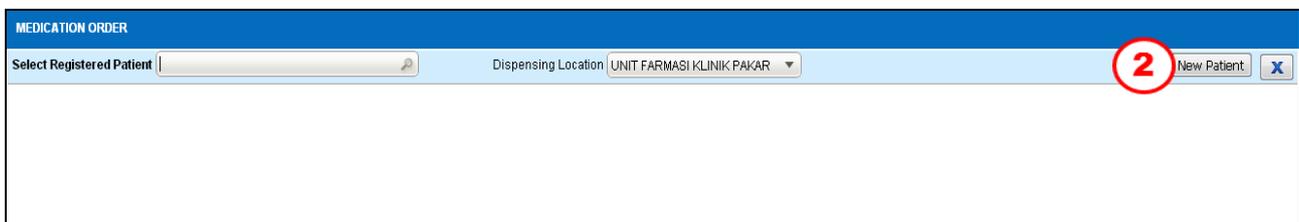


Figure 3.2-2 Transcribe Order Create New Patient

STEP 2

Click on the to register for new patient

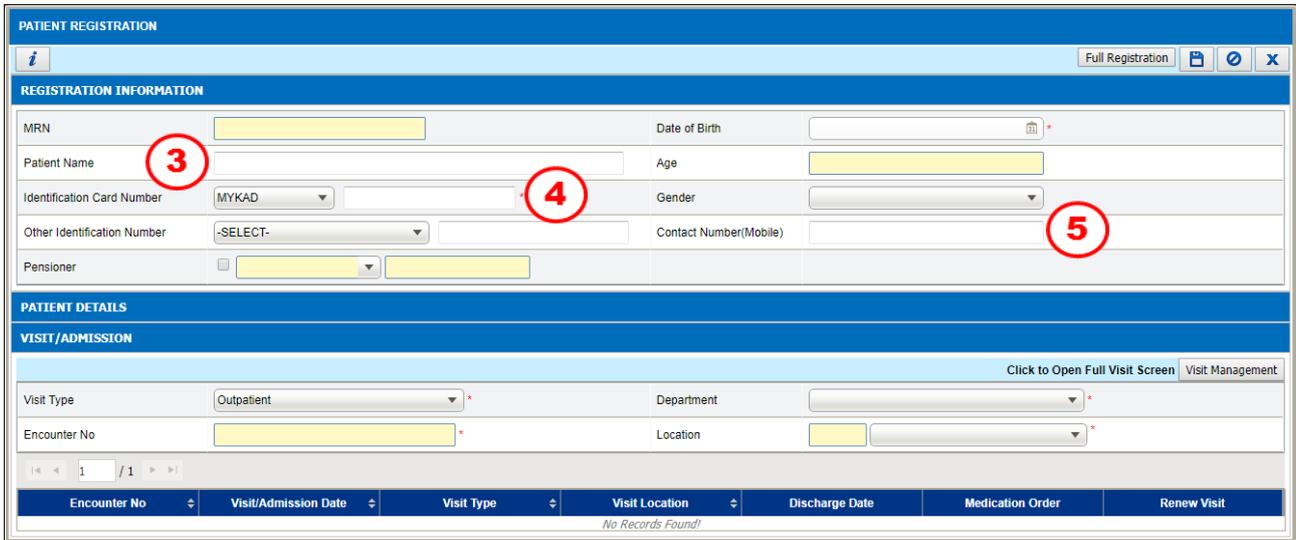


Figure 3.2-3 Registration Information

STEP 3

Enter **Patient Name**

STEP 4

Select from **Identification Card Number** drop down box:

- MYKAD
- MYKID

and enter the relevant number

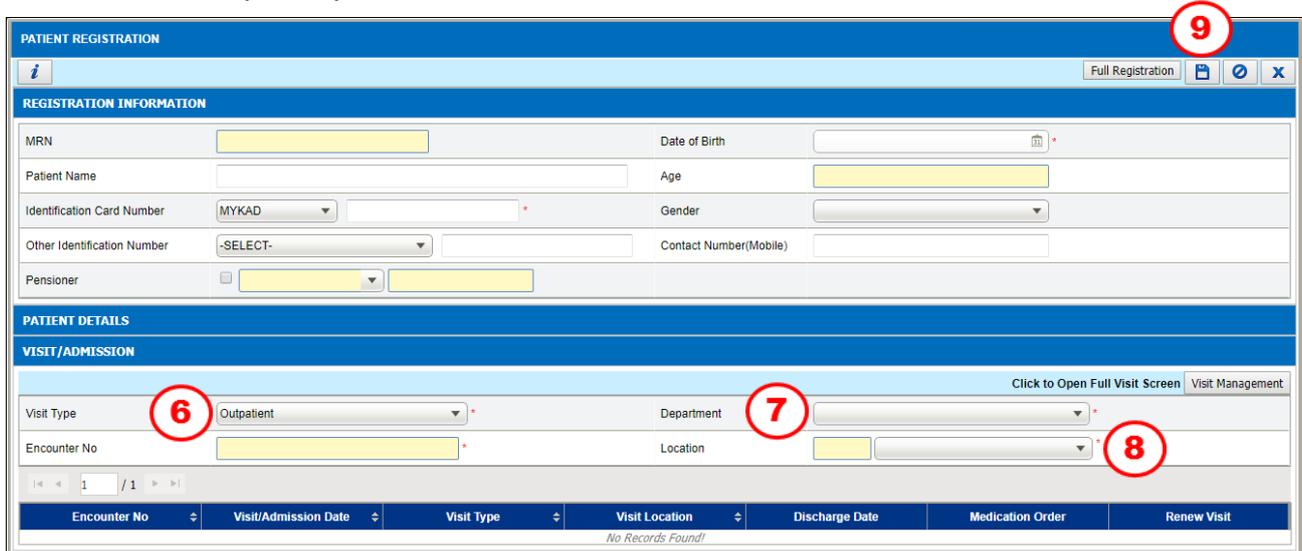
Note

- After enter the **Identification Card Number** the below details will be displayed:
 - Date of Birth (dd/mm/yy)
 - Age (42Y 05M 21D)
 - Gender (Male/Female)
- If MYKAD/MYKID is unavailable, user is required to select the **Other Identification Number** dropdown box:
 - BIRTH CERTIFICATE
 - DRIVING LICENSE
 - FATHER IC
 - MILITARY CARD NUMBER
 - MOTHER IC
 - OLD IC
 - PASSPORT
 - PENSION CARD
 - POLICE CARD NUMBER
 - UNKNOWN PATIENT
 - WORK PERMIT

and enter the relevant number.

STEP 5

Enter **Contact Number (Mobile)**



The screenshot shows the 'PATIENT REGISTRATION' form. The 'REGISTRATION INFORMATION' section includes fields for MRN, Date of Birth, Patient Name, Age, Identification Card Number (MYKAD), Gender, Other Identification Number, and Contact Number (Mobile). The 'PATIENT DETAILS' section includes the 'VISIT/ADMISSION' section with fields for Visit Type (highlighted with a red circle '6'), Department (highlighted with a red circle '7'), Encounter No, and Location (highlighted with a red circle '8'). A red circle '9' is placed in the top right corner of the form's title bar. A table at the bottom shows columns for Encounter No, Visit/Admission Date, Visit Type, Visit Location, Discharge Date, Medication Order, and Renew Visit. The text 'No Records Found!' is visible below the table.

Figure 3.2-4 Visit/Admission

STEP 6

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

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

STEP 7

Select the **Department** from dropdown box

Note

Department will tie to the selected visit type.

STEP 8

Select **Location** from dropdown box

Note

Location will tie to the selected Department.

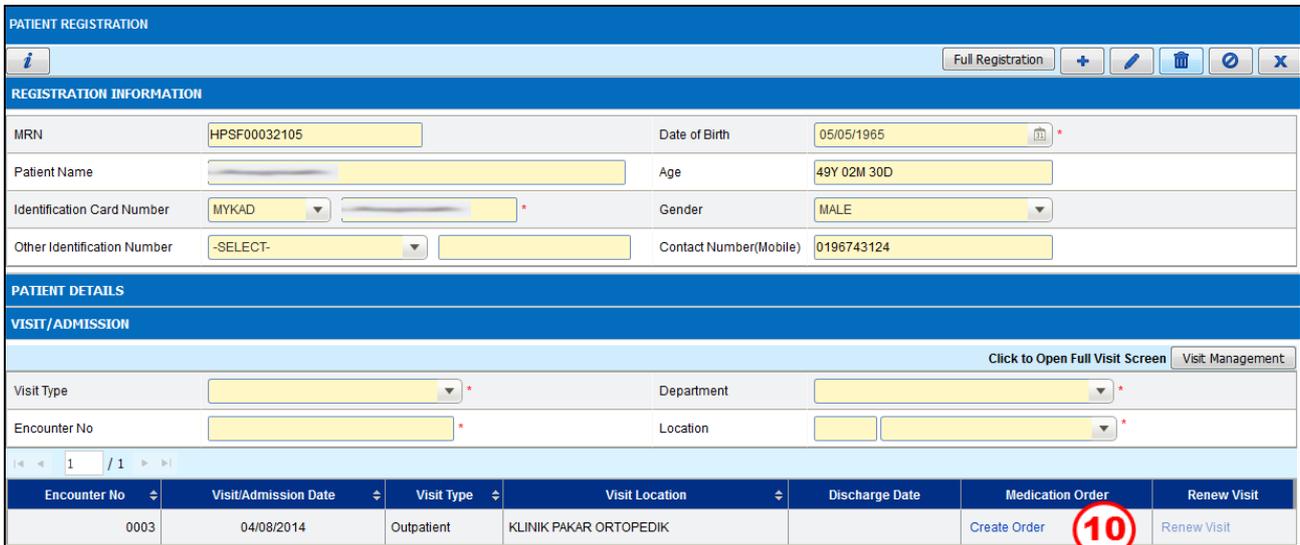
STEP 9

Click on the  button to save the record

Note

- After click the save button, system will automatically generate the **MRN** (Medical Record Number) and ,  and  buttons will be enabled.

- Click on the **Full Registration** button to access to 'Visit Management' screen.
- Another option to register a new patient is to click on the **New Patient Registration** button located under Patient Quick Registration that will display the same screen as Figure 3.2-3.



Encounter No	Visit/Admission Date	Visit Type	Visit Location	Discharge Date	Medication Order	Renew Visit
0003	04/08/2014	Outpatient	KLINIK PAKAR ORTOPEDIK		Create Order 10	Renew Visit

Figure 3.2-5 Patient Registration

STEP 10

Click on the **Create Order** hyperlink and the 'Medication Order' screen will be displayed as per Figure 3.2-6

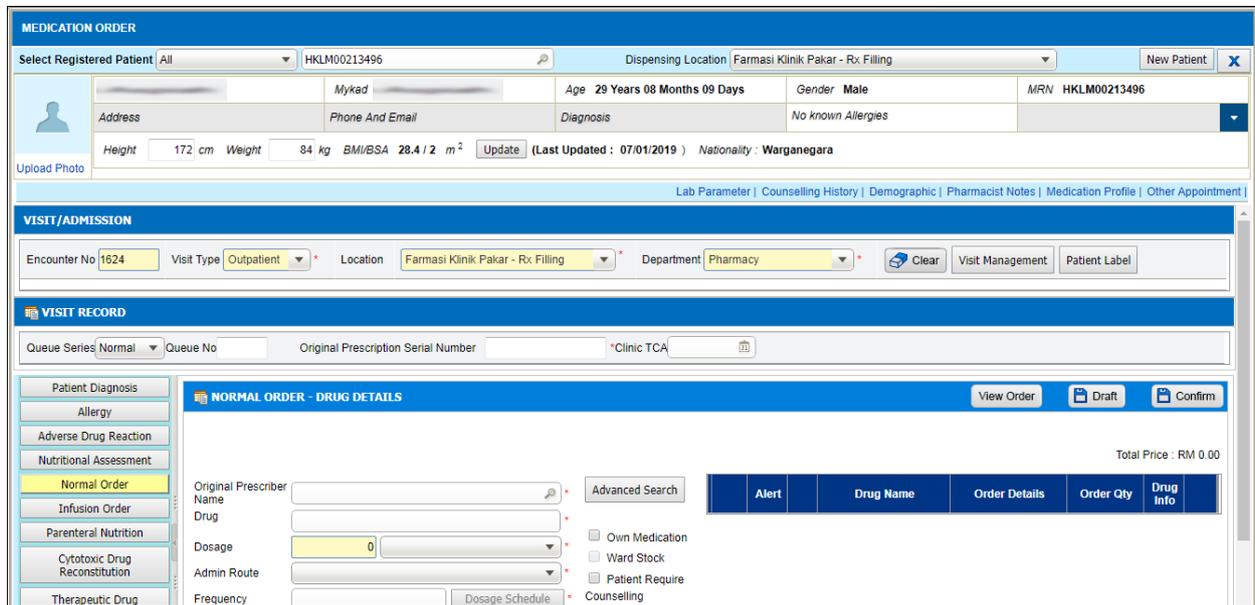


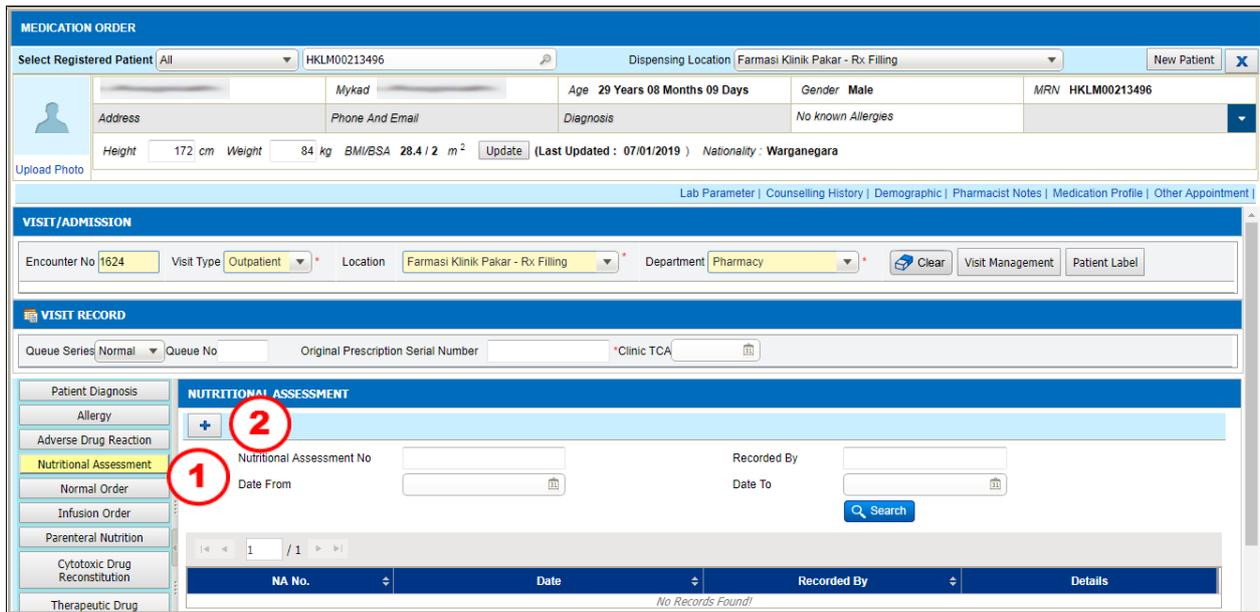
Figure 3.2-6 Medication Order Details

4.0 Parenteral Nutrition (PN) Transcribe Order, Verify, Prepare and Dispense

Verification is for pharmacist to verify the prescriptions received from order management. In this stage, user has an option to do an intervention and hold/resume function.

4.1 Nutritional Assessment

To do nutritional assessment for new patient or existing patient's



The screenshot displays the 'MEDICATION ORDER' interface. At the top, there are fields for 'Select Registered Patient' (All), 'Mykad' (HKLM00213496), and 'Dispensing Location' (Farmasi Klinik Pakar - Rx Filling). Below this, patient details are shown, including 'Age 29 Years 08 Months 09 Days', 'Gender Male', and 'M/RN HKLM00213496'. The 'VISIT/ADMISSION' section shows 'Encounter No 1624', 'Visit Type Outpatient', 'Location Farmasi Klinik Pakar - Rx Filling', and 'Department Pharmacy'. The 'VISIT RECORD' section includes 'Queue Series Normal', 'Queue No', and 'Original Prescription Serial Number'. The 'NUTRITIONAL ASSESSMENT' section is highlighted, and a red circle '1' points to the 'Nutritional Assessment' button in the left sidebar. A red circle '2' points to the '+' button in the 'NUTRITIONAL ASSESSMENT' header. The 'Nutritional Assessment' section contains fields for 'Nutritional Assessment No', 'Date From', 'Recorded By', and 'Date To', along with a 'Search' button. A table below shows columns for 'NA No.', 'Date', 'Recorded By', and 'Details', with a message 'No Records Found!' below it.

Figure 4.1-1 Nutritional Assessment

Nutritional Assessment allow user to record all nutritional assessment for new patient and existing patient

STEP 1

Click on the **Nutritional Assessment** button to do nutritional assessment for new patient or existing patient's

STEP 2

Click on the **+** button to add new nutritional assessment record

NUTRITIONAL ASSESSMENT

NUTRITIONAL RISK SCREENING

Initial Screening

1. Is BMI < 20.5? Yes No

2. Has the patient lost weight within the last 3 months? Yes No

3. Has the patient had a reduced dietary intake in the last week? Yes No

4. Is the patient severely ill? (e.g. in intensive therapy) Yes No

Yes: If the answer is 'Yes' to any question, the final screening is performed.
No: If the answer is 'No' to any question, the patient is re-screened at weekly intervals. If the patient e.g. is scheduled for a major operation, a preventive nutritional care plan is considered to avoid the associated risk status.

FINAL SCREENING

Impaired nutritional status		Severity of disease	
Score		Score	
Note:		Note:	
Absent:	Normal nutritional status	Absent:	Normal nutritional status
Mild:	Wt loss > 5% in 3 mths or Food intake below 50-75% of normal requirement in preceding week	Mild:	Hip fracture* Chronic patients, in particular with acute complications: cirrhosis*, COPD*, Chronic hemodialysis, diabetes, oncology
Moderate:	Wt loss > 5% in 2 mths or BMI 18.5-20.5 + impaired general condition or Food intake 25-50% of normal requirement in preceding week	Moderate:	Major abdominal surgery* Stroke* Severe pneumonia, hematologic malignancy
Severe:	Wt loss 45% in 1 mth (> 15% in 3mths) or BMI < 18.5 + impaired general condition or Food intake 0-25% of normal requirement in preceding week	Severe:	Head injury* Bone marrow transplantation* Intensive care patients (APACHE410)
Total Score			

Figure 4.1-2 Nutritional Assessment

Note

- Answer all question by selecting “Yes” or “No” for **Nutritional Risk Screening**.
- User have to select the **Impaired Nutritional Status** from the dropdown menu:
 - Absent
 - Mild Score
 - Moderate Score
 - Severe Score
- User have to select the **Severity of Disease** from the dropdown menu:
 - Absent
 - Mild Score
 - Moderate Score
 - Severe Score
- **Total Score** for final screening will automatically calculate and display by system.

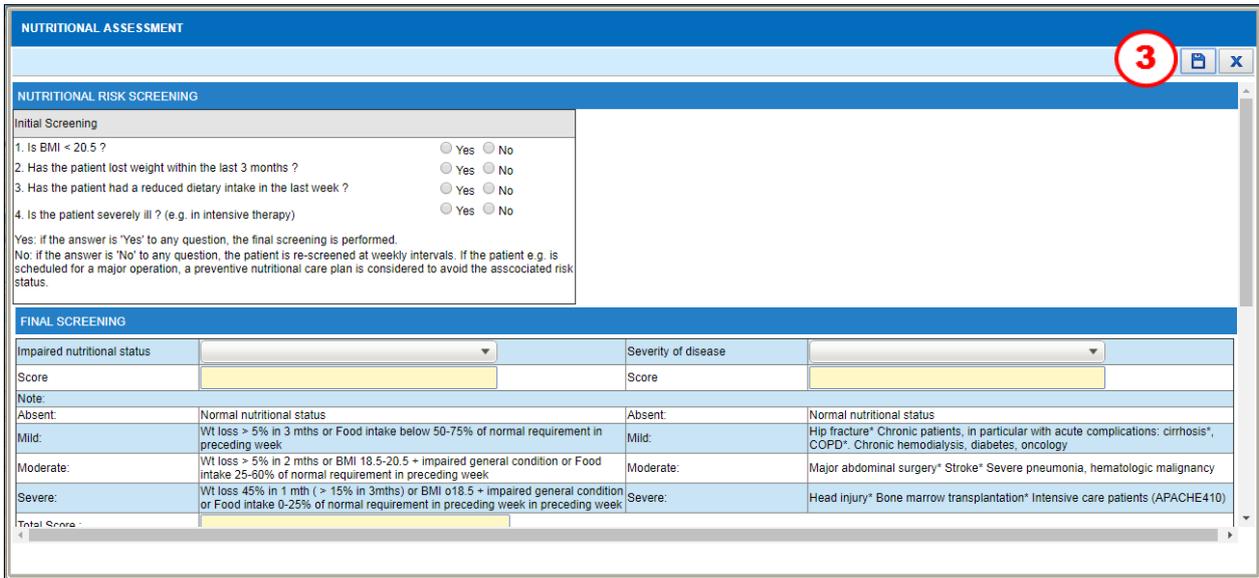


Figure 4.1-4 Nutritional Assessment

STEP 3

Click on the  button to save record and alert message will be displayed as per Figure 4.1-5.

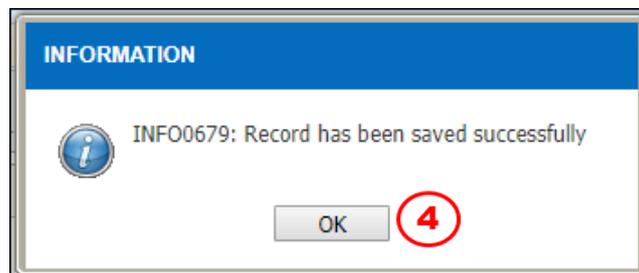


Figure 4.1-5 Information Alert Message

STEP 4

Click on the  button and 'Nutritional Assessment' listing screen will be displayed as per Figure 4.1-6.



MEDICATION ORDER

Select Registered Patient: All | HKLM00213496 | Dispensing Location: Farmasi Klinik Pakar - Rx Filling | New Patient

Mykad: [Redacted] | Age: 29 Years 08 Months 09 Days | Gender: Male | MRN: HKLM00213496

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 84 kg | BMI/BSA: 28.4 / 2 m² | Update (Last Updated: 07/01/2019) | Nationality: Warganegara

Encounter No: 1624 | Visit Type: Outpatient | Location: Farmasi Klinik Pakar - Rx Filling | Department: Pharmacy | Clear | Visit Management | Patient Label

VISIT RECORD

Queue Series: Normal | Queue No: [Redacted] | Original Prescription Serial Number: [Redacted] | *Clinic TCA: [Redacted]

NUTRITIONAL ASSESSMENT

Nutritional Assessment No: [Redacted] | Recorded By: [Redacted]

Date From: [Redacted] | Date To: [Redacted]

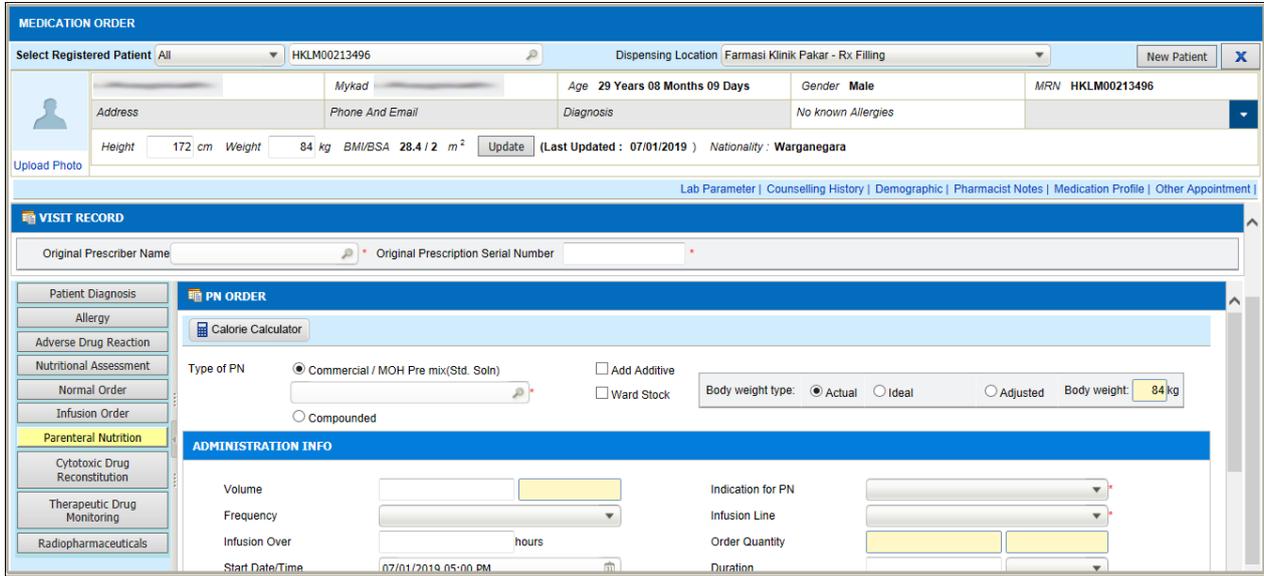
Search

NA No.	Date	Recorded By	Details
NA19-01-0001	07/01/2019	ASHRAF RAHIMI MOHD AKHMAR	NRS Total Score: 4, SGA Score: N/A

Figure 4.1-6 Nutritional Assessment Listing

4.2 Calorie Calculator

To calculate patient's calorie

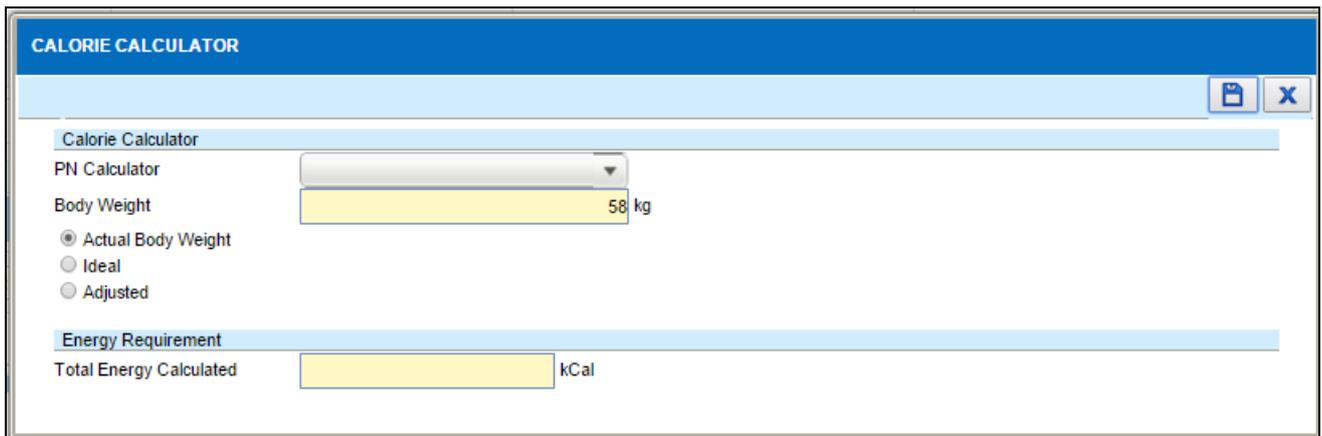


The screenshot shows the 'MEDICATION ORDER' interface. At the top, there are fields for 'Select Registered Patient' (All), 'HKL00213496', and 'Dispensing Location' (Farmasi Klinik Pakar - Rx Filling). Below this is a patient profile section with fields for Mykad, Age (29 Years 08 Months 09 Days), Gender (Male), MFRN (HKL00213496), Address, Phone And Email, Diagnosis, No known Allergies, Height (172 cm), Weight (84 kg), BMI/BSA (28.4 / 2 m²), and Nationality (Warganegara). A 'VITIS RECORD' section is also visible. The main area is titled 'PN ORDER' and contains a 'Calorie Calculator' button. Below the button, there are options for 'Type of PN' (Commercial / MOH Pre mix (Std. Soln), Add Additive, Ward Stock, Compounded) and 'Body weight type' (Actual, Ideal, Adjusted) with a 'Body weight' field set to 84 kg. An 'ADMINISTRATION INFO' section includes fields for Volume, Frequency, Infusion Over, Start Date/Time (07/01/2019 05:00 PM), Indication for PN, Infusion Line, Order Quantity, and Duration.

Figure 4.2-1 Calorie Calculator

Note

- Calorie calculator allow user to calculate patient's calorie requirement.
- This value will be used as a guideline for user to order the required TPN order for patient.
- Click on the  button to calculate patient calorie.
- 'Calorie Calculator' screen will be displayed as per Figure 4.2-2.



The screenshot shows a standalone window titled 'CALORIE CALCULATOR'. It has a 'Calorie Calculator' header and a 'PN Calculator' dropdown menu. Below this is a 'Body Weight' field set to 58 kg, with radio buttons for 'Actual Body Weight' (selected), 'Ideal', and 'Adjusted'. There is also an 'Energy Requirement' section with a 'Total Energy Calculated' field set to kCal.

Figure 4.2-2 Calorie Calculator

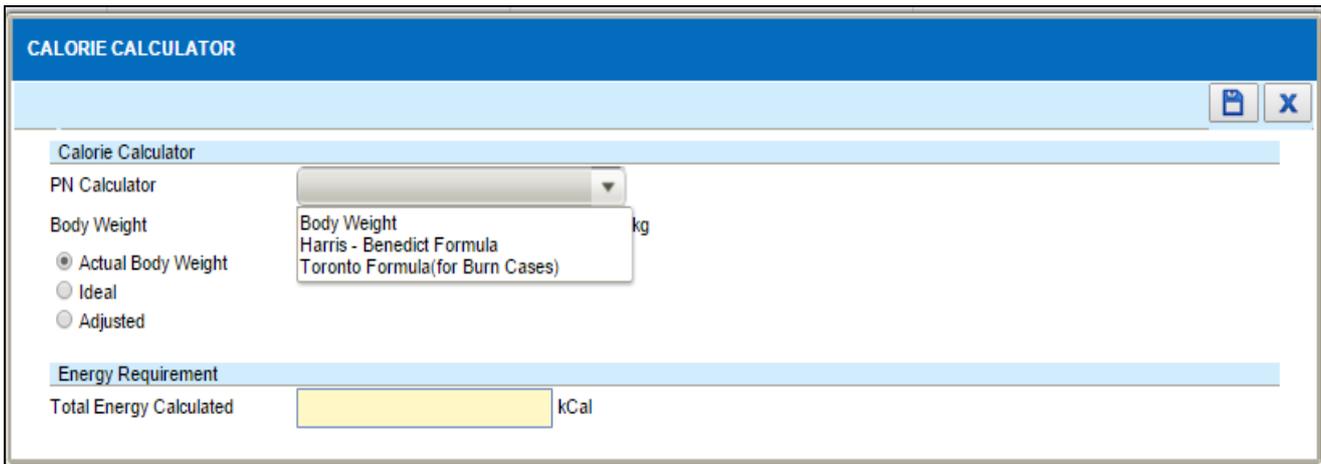
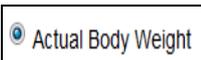


Figure 4.2-3 Calorie Calculator

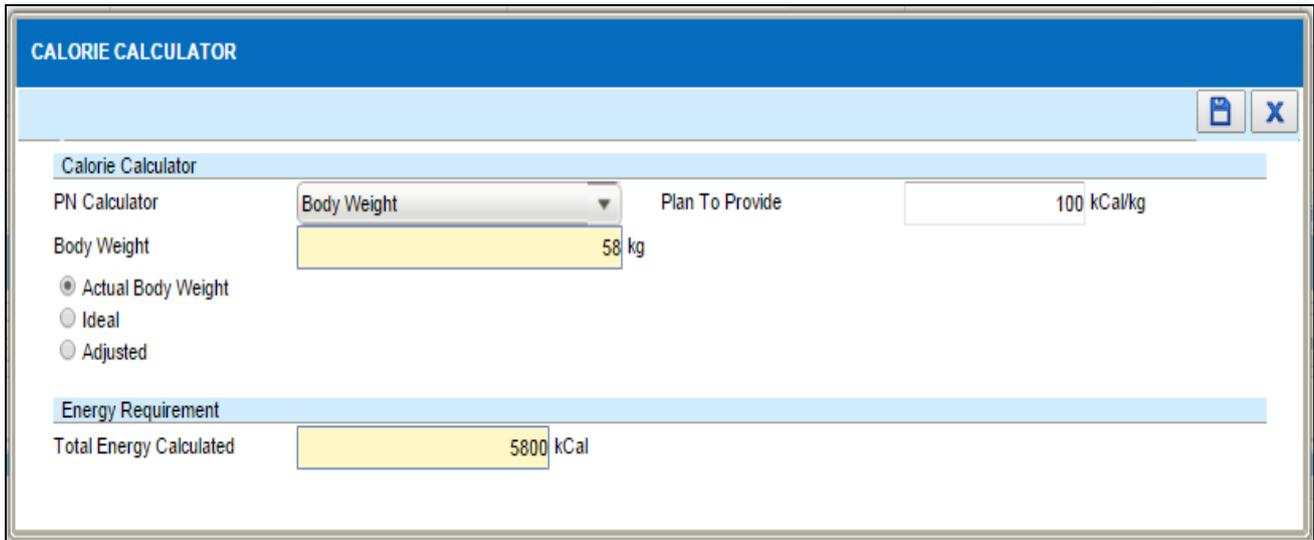
Note

- By default the 'Body Weight' radio button will auto select the



of the patient.

- User have to select either one of the following 'Body Weight' radio button:
 - Actual Body Weight
 - Ideal
 - Adjusted
- Body Weight value will automatically display based on the information from 'Patient Banner'.
- There are three types of PN Calculator:
 - Body Weight
 - Harris-Benedict Formula
 - Toronto Formula(for Burn Cases)



CALORIE CALCULATOR

Calorie Calculator

PN Calculator: Body Weight (dropdown) Plan To Provide: 100 kCal/kg

Body Weight: 58 kg

Actual Body Weight
 Ideal
 Adjusted

Energy Requirement

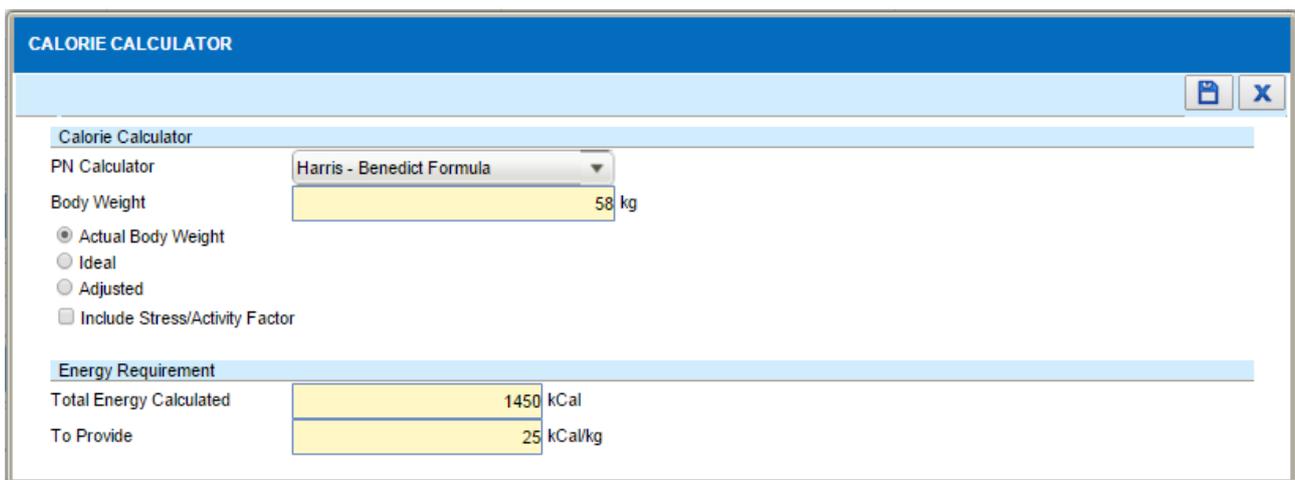
Total Energy Calculated: 5800 kCal

Figure 4.2-4 Calorie Calculator

Note

PN Calculator : Body Weight

- Select 'Body Weight' from 'PN Calculator' dropdown box.
- Enter the amount in 'Plan To Provide (kCal/kg)'.
- 'Total Energy Calculated' will be automatically calculated and displayed as per Figure 4.2-4.
- The  button to save record.
- The  button to close the screen.



CALORIE CALCULATOR

Calorie Calculator

PN Calculator: Harris - Benedict Formula (dropdown) Plan To Provide: 100 kCal/kg

Body Weight: 58 kg

Actual Body Weight
 Ideal
 Adjusted
 Include Stress/Activity Factor

Energy Requirement

Total Energy Calculated: 1450 kCal

To Provide: 25 kCal/kg

Figure 4.2-5 Calorie Calculator

Note

PN Calculator : Harris-Benedict Formula

- Select 'Harris – Benedict Formula' from 'PN Calculator' dropdown box.
- Select the 'Include Stress/Activity Factor' checkbox.
- 'Stress Factor', 'Activity Factor' and 'To Provide (kCal/kg)' will display after selected the 'Include Stress/ Activity Factor' checkbox as shown in Figure 4.2-6.

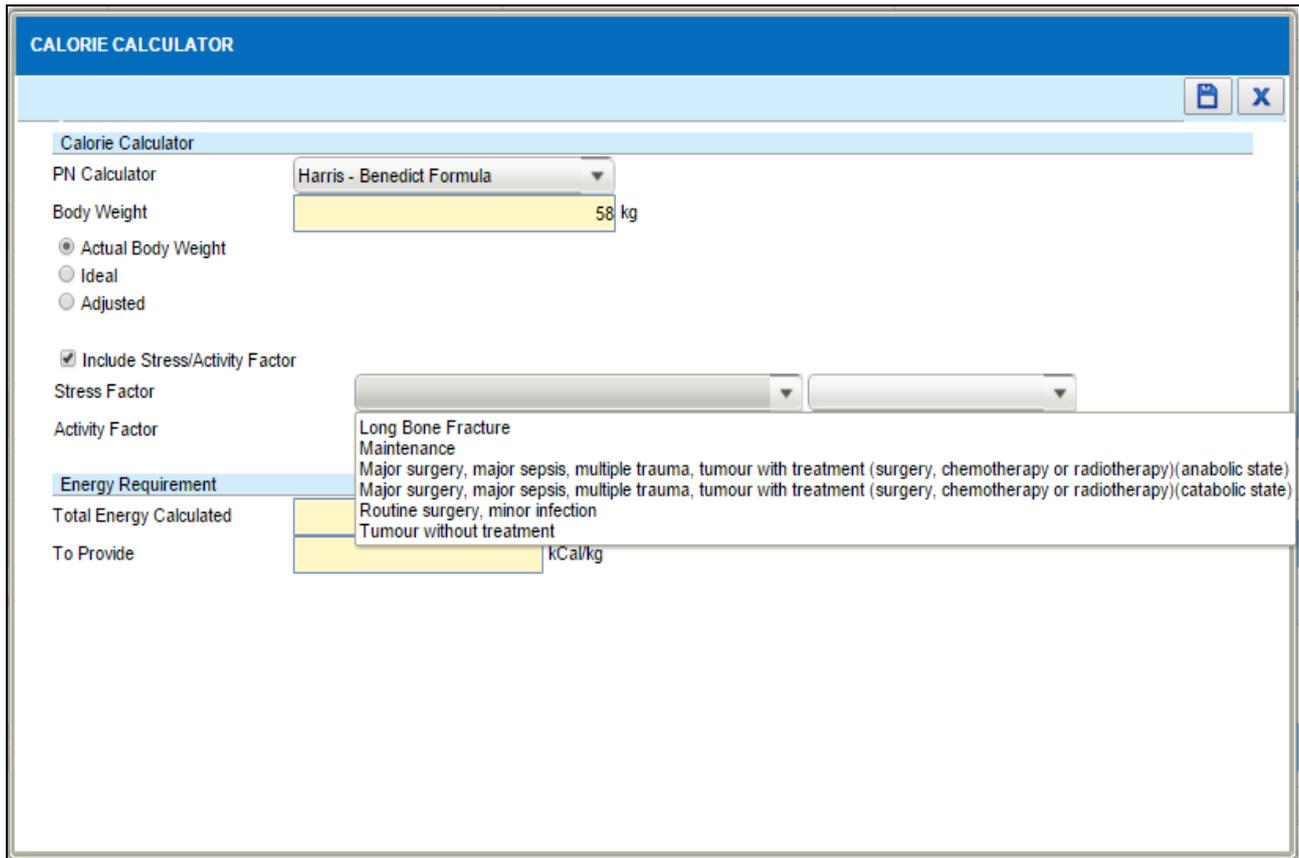
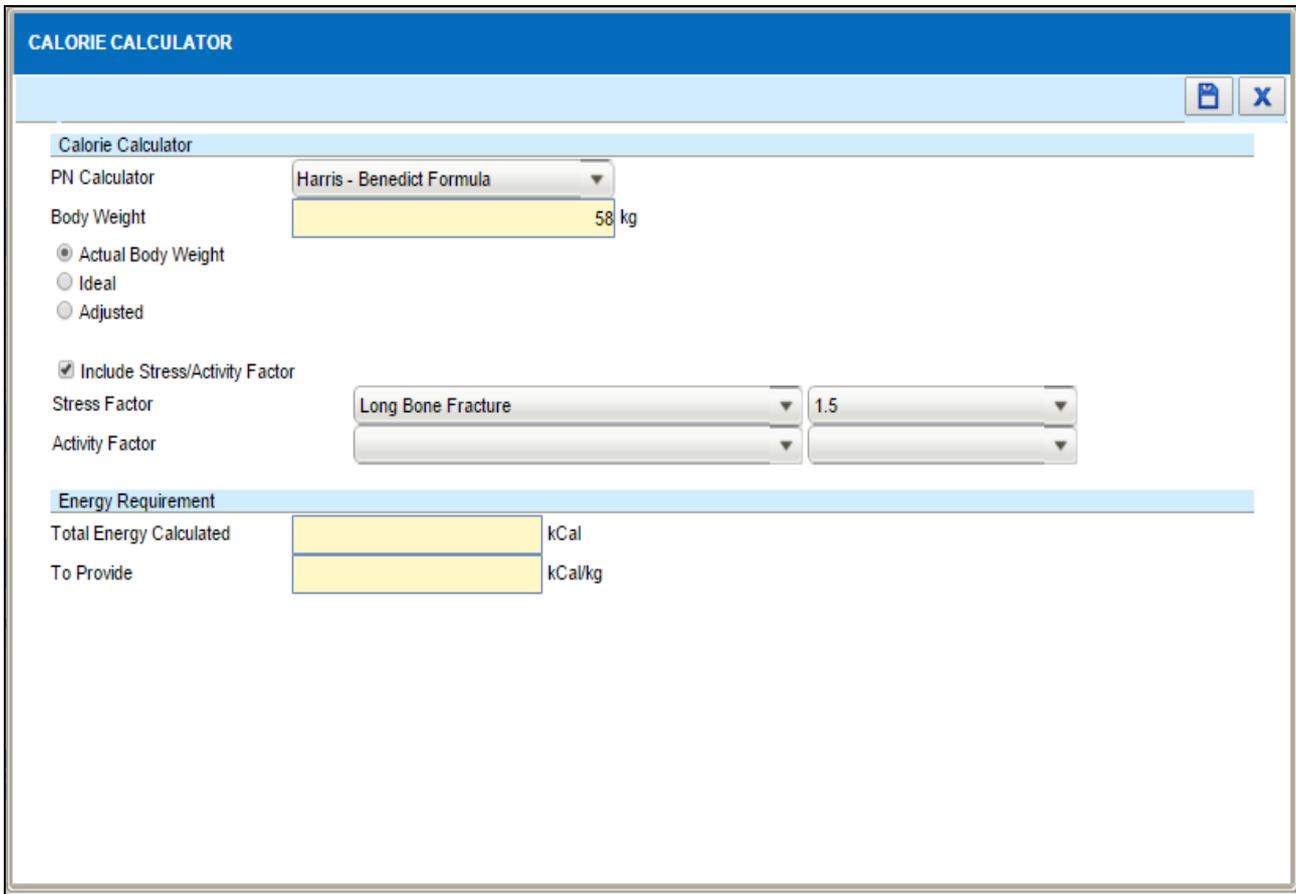


Figure 4.2-6 Calorie Calculator

Note

User have to select the type of 'Stress Factor' from the dropdown box:

- Long Bone Fracture.
- Maintenance.
- Major surgery, major sepsis, multipletrauma, tumour with treatment (surgery, chemotherapy or radiotherapy)(anabolic state).
- Major surgery, major sepsis, multipletrauma, tumour with treatment (surgery, chemotherapy or radiotherapy)(catabolic state).
- Routine sugery, minor infection.
- Tumour without treatment.



CALORIE CALCULATOR

Calorie Calculator

PN Calculator: Harris - Benedict Formula

Body Weight: 58 kg

Actual Body Weight
 Ideal
 Adjusted

Include Stress/Activity Factor

Stress Factor: Long Bone Fracture 1.5

Activity Factor:

Energy Requirement

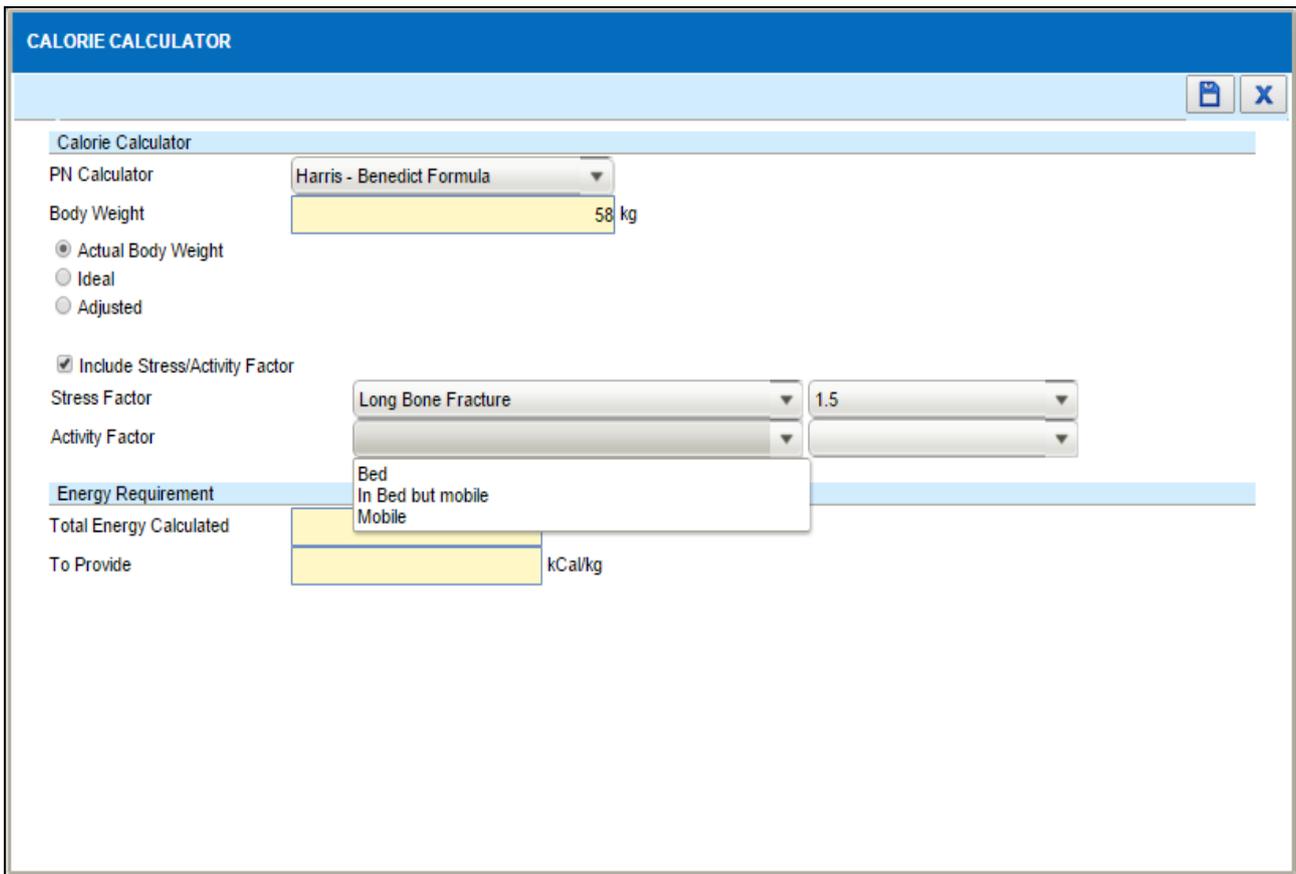
Total Energy Calculated: kCal

To Provide: kCal/kg

Figure 4.2-7 Calorie Calculator

Note

Value of the 'Stress Factor' will be automatically calculated by system.



CALORIE CALCULATOR

Calorie Calculator

PN Calculator: Harris - Benedict Formula

Body Weight: 58 kg

Actual Body Weight
 Ideal
 Adjusted

Include Stress/Activity Factor

Stress Factor: Long Bone Fracture 1.5

Activity Factor: [Dropdown]

Energy Requirement: [Dropdown: Bed, In Bed but mobile, Mobile]

Total Energy Calculated: [Field]

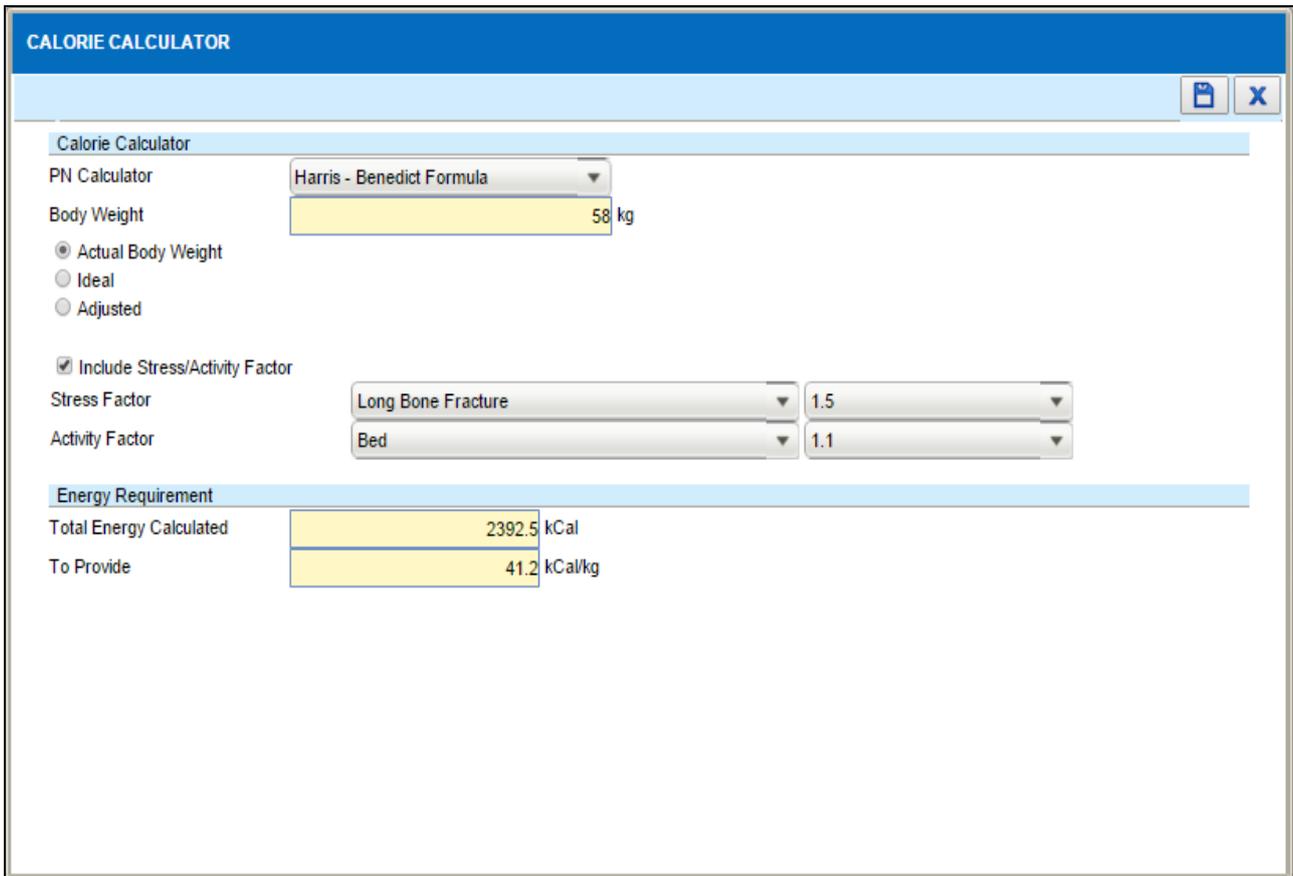
To Provide: [Field] kCal/kg

Figure 4.2-8 Calorie Calculator

Note

From the dropdown box user have to select type of 'Activity Factor' list which are:

- Bed
- In Bed but mobile
- Mobile



CALORIE CALCULATOR	
Calorie Calculator	
PN Calculator	Harris - Benedict Formula
Body Weight	58 kg
<input checked="" type="radio"/> Actual Body Weight <input type="radio"/> Ideal <input type="radio"/> Adjusted	
<input checked="" type="checkbox"/> Include Stress/Activity Factor	
Stress Factor	Long Bone Fracture 1.5
Activity Factor	Bed 1.1
Energy Requirement	
Total Energy Calculated	2392.5 kCal
To Provide	41.2 kCal/kg

Figure 4.2-9 Calorie Calculator

Note

- Value of the 'Activity Factor' will be automatically calculated by system.
- Amount of 'Total Energy Calculated' and 'To Provide (kCal/kg)' will be automatically calculated after selected the 'Activity Factor' as per Figure 4.2-9.
- The  button to save record.
- The  button to close the screen.

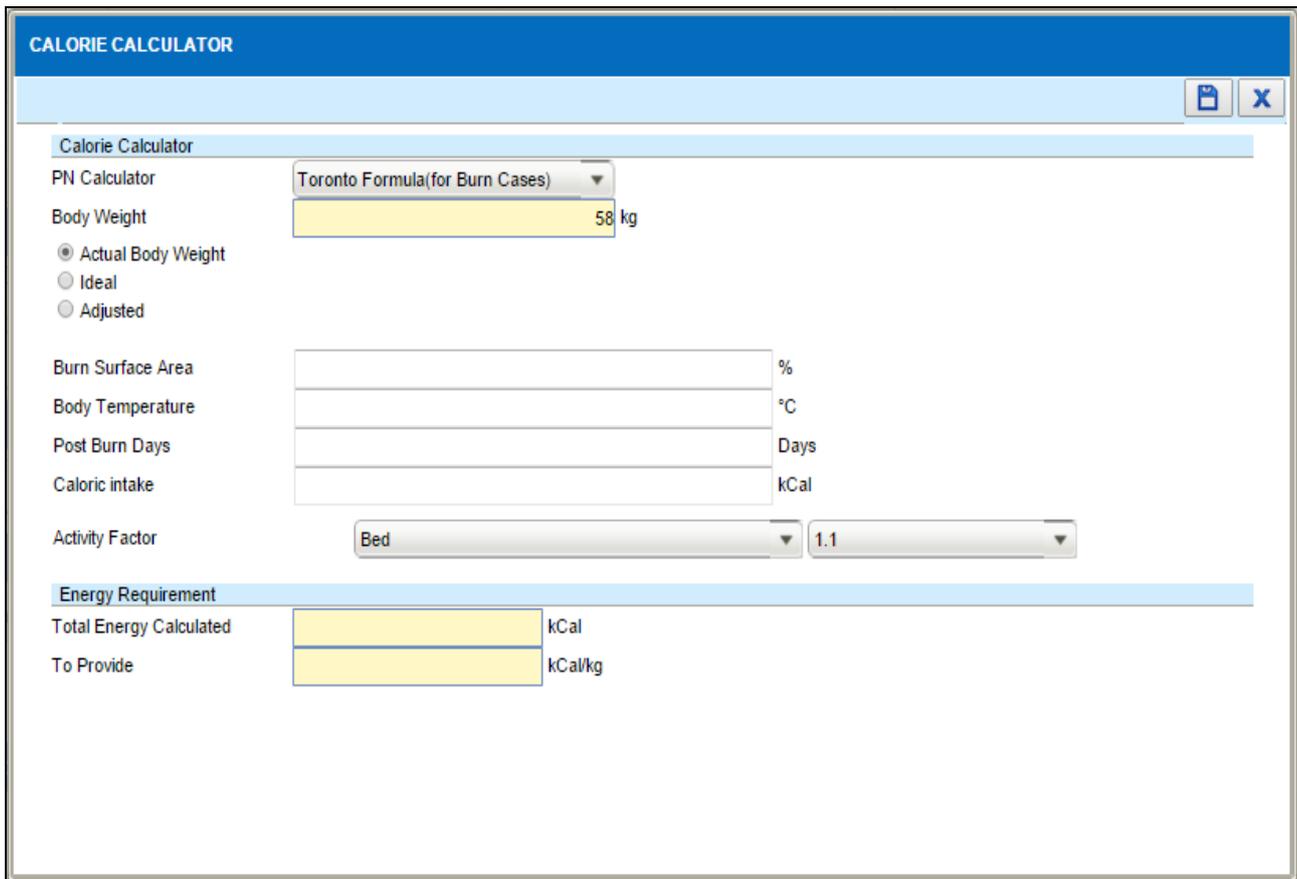


Figure 4.2-10 Calorie Calculator

Note

PN Calculator : Toronto Formula

- Select 'Toronto Formula (for Burn Cases)' from 'PN Calculator' dropdown box.
- Enter fields as below:
 - Burn Surface Area
 - Body Temperature
 - Post Burn Days
 - Calorie Intake
- User have to select type of 'Activity Factor' from the dropdown box:
 - Bed
 - In Bed but mobile
 - Mobile
- Value of the 'Activity Factor' will be automatically calculated by system.



- *'Total Energy Calculated' and 'To Provide (kCal/kg)' will be automatically calculated after selected the 'Activity Factor' as per Figure 4.2-10.*
- The  button to save record.
- The  button to close the screen.

4.3 Commercial/MOH Pre mix (Std Soln)

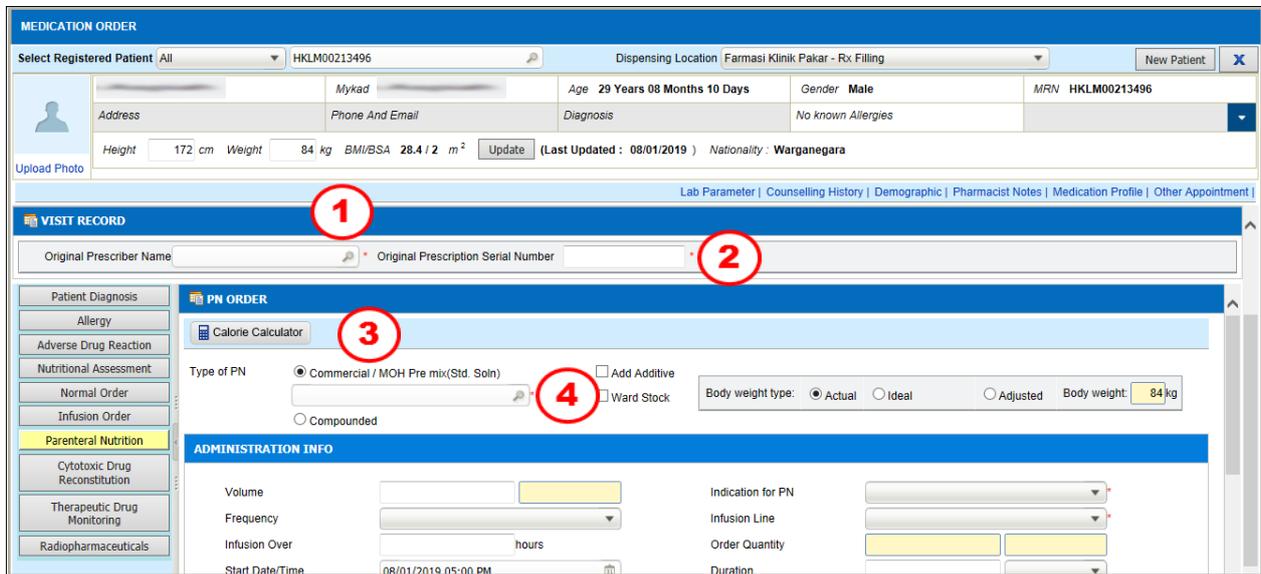


Figure 4.3-1 PN Order : Commercial

Commercial / MOH Pre Mix (Std. Soln) allow user to order ready made product from manufacturer or facility

STEP 1

Click on the  button to search for **Original Prescriber Name**

STEP 2

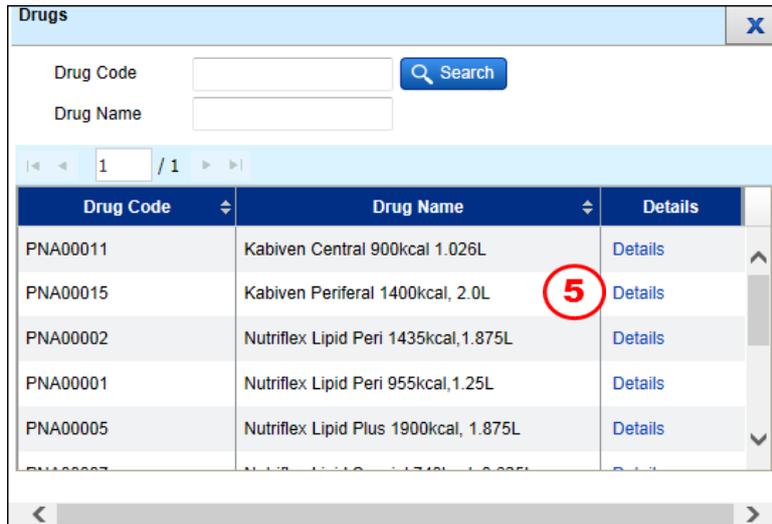
Enter the **Original Order Transaction Number**

STEP 3

Select on the **Commercial / MOH Pre mix(Std. Soln)** radio button for 'Type of PN'

STEP 4

Click on the  button to search for product



The screenshot shows a web application window titled 'Drugs'. It has a search bar with 'Drug Code' and 'Drug Name' input fields and a 'Search' button. Below the search bar is a table with the following data:

Drug Code	Drug Name	Details
PNA00011	Kabiven Central 900kcal 1.026L	Details
PNA00015	Kabiven Periferal 1400kcal, 2.0L	Details
PNA00002	Nutriflex Lipid Peri 1435kcal, 1.875L	Details
PNA00001	Nutriflex Lipid Peri 955kcal, 1.25L	Details
PNA00005	Nutriflex Lipid Plus 1900kcal, 1.875L	Details

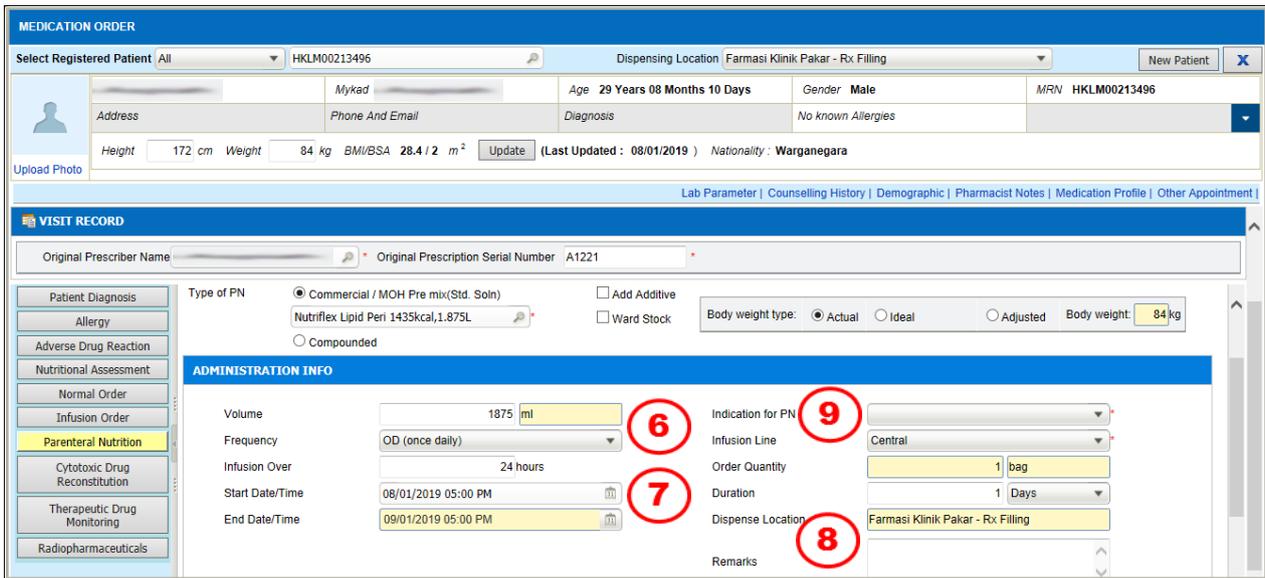
Figure 4.3-2 Drugs Listing

STEP 5

Select product that required for patient

Note

- To search for product record(s), user may search by criteria as follow:
 - Drug Code
 - Drug Name
- Click on the  button to search for the product.
- Click on the  button to view product ingredients and content.



MEDICATION ORDER

Select Registered Patient: All | HKLM00213496 | Dispensing Location: Farmasi Klinik Pakar - Rx Filling | New Patient X

Mykad: [Redacted] | Age: 29 Years 08 Months 10 Days | Gender: Male | MRN: HKLM00213496

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 84 kg | BMI/BSA: 28.4 / 2 m² | Update (Last Updated: 08/01/2019) | Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT RECORD

Original Prescriber Name: [Redacted] | Original Prescription Serial Number: A1221

Patient Diagnosis: [Redacted] | Allergy: [Redacted] | Adverse Drug Reaction: [Redacted] | Nutritional Assessment: [Redacted] | Normal Order: [Redacted] | Infusion Order: [Redacted] | Parenteral Nutrition: [Selected] | Cytotoxic Drug Reconstitution: [Redacted] | Therapeutic Drug Monitoring: [Redacted] | Radiopharmaceuticals: [Redacted]

Type of PN: Commercial / MOH Pre mix(Std. Soln) | Add Additive | Ward Stock | Body weight type: Actual | Ideal | Adjusted | Body weight: 84 kg

Nutriflex Lipid Peri 1435kcal,1.875L | Compounded

ADMINISTRATION INFO

Volume: 1875 ml (6) | Indication for PN: [Redacted] (9)

Frequency: OD (once daily) (7) | Infusion Line: Central

Infusion Over: 24 hours | Order Quantity: 1 bag

Start Date/Time: 08/01/2019 05:00 PM (7) | Duration: 1 Days

End Date/Time: 09/01/2019 05:00 PM (7) | Dispense Location: Farmasi Klinik Pakar - Rx Filling (8)

Remarks: [Redacted] (8)

Figure 4.3-3 PN Order : Commercial

STEP 6

Enter **Volume** and select **Frequency** field

Note

- All information will be automatically displayed based on the information from PN Source Content and PN Constituents Reference Range.
- This field still can be change by the user if applicable.

STEP 7

Select **Start Date/Time**

Note

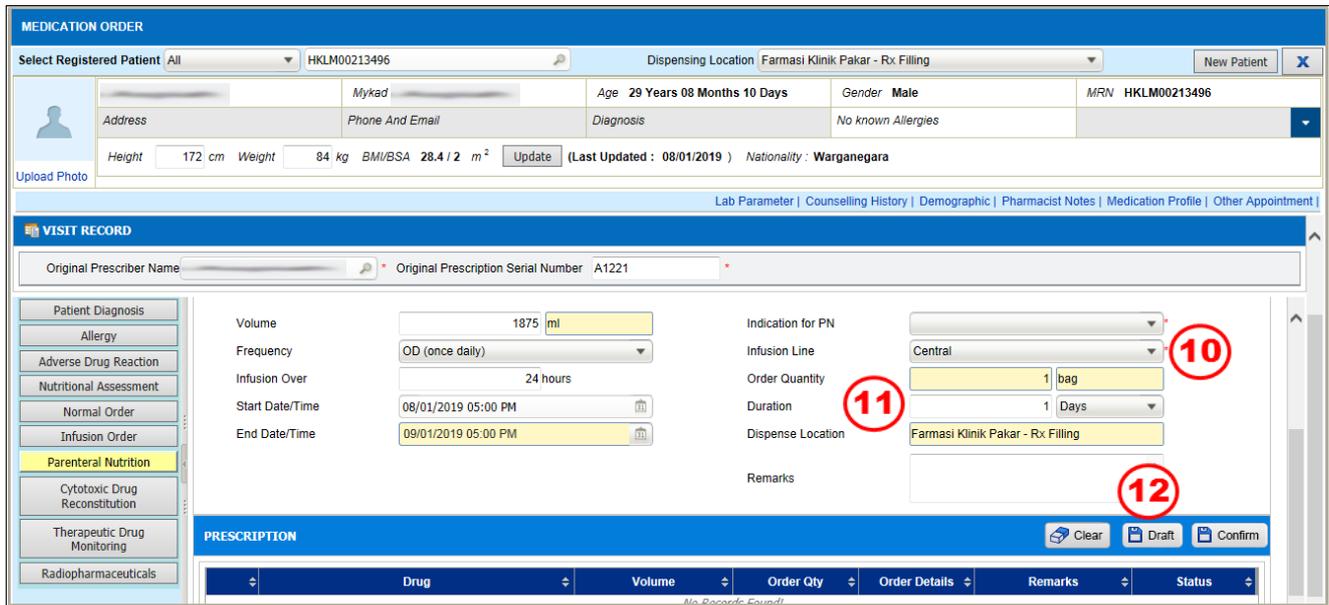
- **Start Date/Time** and will be automatically default to current date but still can be change by the user if applicable.
- **End Date/Time** will be displayed according to duration product given.
- **Order Quantity** will be automatically displayed and base on the information from PN Source Content and PN Constituents Reference Range.

STEP 8

Enter **Remarks** if applicable

STEP 9

Select **Indication for PN** from the dropdown menu



MEDICATION ORDER

Select Registered Patient: All | HKLM00213496 | Dispensing Location: Farmasi Klinik Pakar - Rx Filling | New Patient

Mykad: [Redacted] | Age: 29 Years 08 Months 10 Days | Gender: Male | MRN: HKLM00213496

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 84 kg | BMI/BSA: 28.4 / 2 m² | Update (Last Updated: 08/01/2019) | Nationality: Warganegara

VISIT RECORD

Original Prescriber Name: [Redacted] | Original Prescription Serial Number: A1221

Volume: 1875 ml | Indication for PN: [Redacted] | Infusion Line: Central (10)

Frequency: OD (once daily) | Order Quantity: 1 bag (11)

Infusion Over: 24 hours | Duration: 1 Days (11)

Start Date/Time: 08/01/2019 05:00 PM | End Date/Time: 09/01/2019 05:00 PM | Dispense Location: Farmasi Klinik Pakar - Rx Filling (12)

Remarks: [Redacted]

PRESCRIPTION | Clear | Draft | Confirm

Drug	Volume	Order Qty	Order Details	Remarks	Status
No Records Found					

Figure 4.3-4 PN Order : Commercial

STEP 10

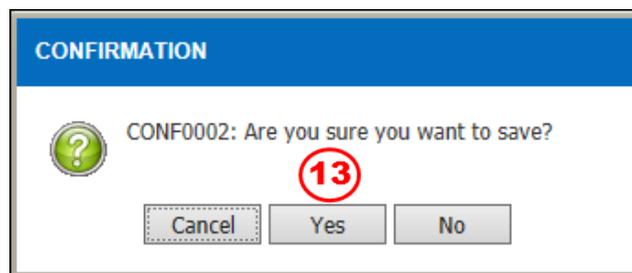
Select **Infusion Line** from drop down menu

STEP 11

Enter/select **Duration** and **Infusion Over** field

STEP 12

Click on the  button to save record and alert message will be displayed as per Figure 4.3-4



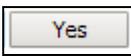
CONFIRMATION

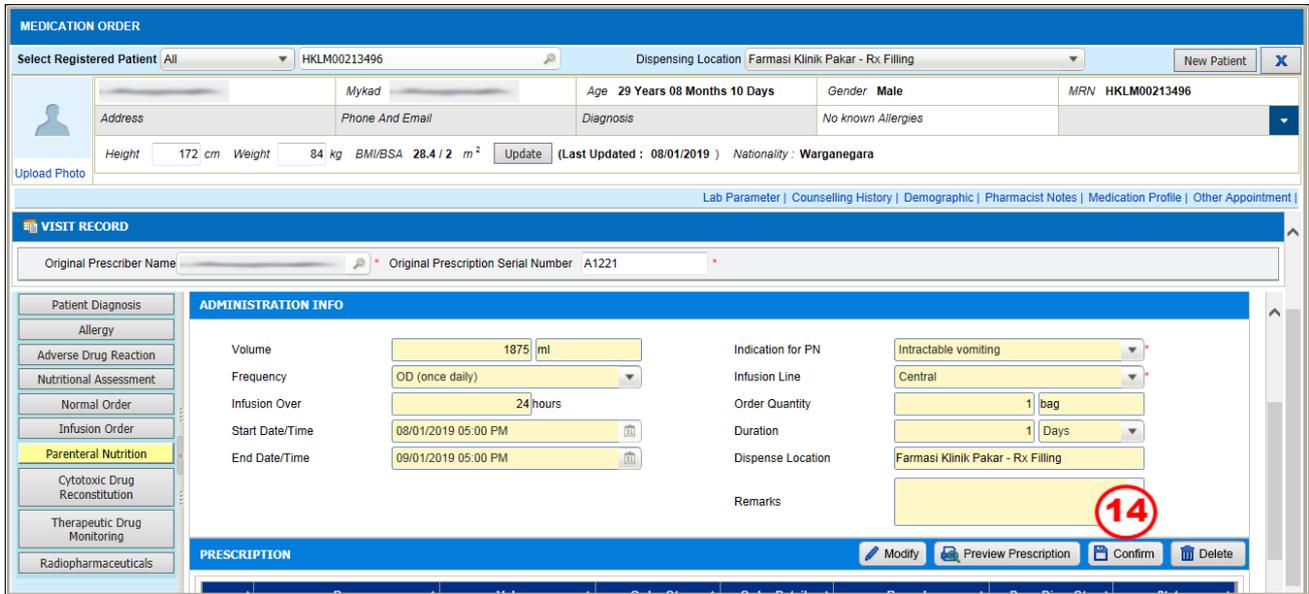
CONF0002: Are you sure you want to save? (13)

Cancel | Yes | No

Figure 4.3-5 Information Alert message

STEP 13

Click on the  button to save order record



MEDICATION ORDER

Select Registered Patient: All | HKLM00213496 | Dispensing Location: Farmasi Klinik Pakar - Rx Filling | New Patient: X

Mykad: [Redacted] | Age: 29 Years 08 Months 10 Days | Gender: Male | MRN: HKLM00213496

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 84 kg | BMI/BSA: 28.4 / 2 m² | Update (Last Updated: 08/01/2019) | Nationality: Warganegara

VISIT RECORD

Original Prescriber Name: [Redacted] | Original Prescription Serial Number: A1221

ADMINISTRATION INFO

Volume	1875 ml	Indication for PN	Intractable vomiting
Frequency	OD (once daily)	Infusion Line	Central
Infusion Over	24 hours	Order Quantity	1 bag
Start Date/Time	08/01/2019 05:00 PM	Duration	1 Days
End Date/Time	09/01/2019 05:00 PM	Dispense Location	Farmasi Klinik Pakar - Rx Filling
Remarks		[Redacted]	

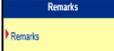
PRESCRIPTION | Modify | Preview Prescription | Confirm | Delete

Figure 4.3-6 PN Order : Commercial

STEP 14

Click on the  button to confirm prescription

Note

- User can directly click on  button to directly confirm order without clicking on  button first.
- Click on the  link and 'PN Order Details' screen will be displayed as per Figure 4.3-11.
- Click on the  link and 'PN Remarks' screen will be displayed as per Figure 4.3-11.



MEDICATION ORDER

Select Registered Patient: All | HKLM00213496 | Dispensing Location: Farmasi Klinik Pakar - Rx Filling | New Patient

Mykad: [Redacted] | Age: 29 Years 08 Months 10 Days | Gender: Male | MRN: HKLM00213496

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 84 kg | BMI/BSA: 28.4 / 2 m² | (Last Updated: 08/01/2019) | Nationality: Warganegara

VISIT RECORD

Original Prescriber Name: [Redacted] | Original Prescription Serial Number: A1221

ADMINISTRATION INFO

Volume: 1875 ml | Indication for PN: Intractable vomiting

Frequency: OD (once daily) | Infusion Line: Central

Infusion Over: 24 hours | Order Quantity: 1 bag

Start Date/Time: 08/01/2019 05:00 PM | Duration: 1 Days

End Date/Time: 09/01/2019 05:00 PM | Dispense Location: Farmasi Klinik Pakar - Rx Filling

Remarks: 15

PRESCRIPTION | Modify | Preview Prescription | Confirm | Delete

Figure 4.3-7 PN Order : Commercial

STEP 15

Click on the Preview Prescription button to preview and print PN prescription as per Figure 4.3-7

PN ORDER DETAILS

Mykad: [Redacted] | Age: 29 Years 08 Months 10 Days | Gender: Male | MRN: HKLM00213496

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 84 kg | BMI/BSA: 28.4 / 2 m² | (Last Updated: 08/01/2019) | Nationality: Warganegara

Drug Name	Total Volume (ml)	Total calorie (kcal)	Infusion Over (hour)	Infusion Rate (ml/hour)	Quantity	Freq	Duration	Start Date / Time	End Date / Time
Nutriflex Lipid Peri 1435kcal, 1.875L	1875	1435	24	78.13 ml/hour	1 bag	OD (once daily)	1 Days	08/01/2019 05:00 PM	09/01/2019 05:00 PM
Calorie Calculator					Infusion Line				
NA					Central				
Intervention Reason			Intervention Remarks			Intervention Accepted			

Figure 4.3-8 PN Order Details

Note

'PN Order Details' screen as per Figure 4.3-8.

PN REMARKS	
Prescriber Remark	
Order Stage	Verified with food nutritionist
Pharmacist Remark	
Verification Stage	

Figure 4.3-9 PN Remarks

Note

'PN Remarks' screen as per Figure 4.3-9.

**Ministry Of Health, Malaysia
HOSPITAL
PARENTERAL NUTRITION**

Patient Name: _____ **Patient ID:** _____

Age: 29 Years 08 Months 10 Days **MRN:** HKLM00213496

Gender: Male **Prescription :** FKPFill0000461918

Height / Weight / BSA: 172 cm/84 kg/2.03 m² **Order Date / Time :**

Room No / Bed: _____ **Location:** Farmasi Klinik Pakar - Rx Filling

Diagnosis: _____ **Allergy:**

TPN Order: Nutriflex Lipid Peri 1435kcal,1.875L **Order Quantity:** 1 bag

Start Date/Time: 08/01/2019 05:00 PM **End Date/Time:** 09/01/2019 05:00 PM

	Content / kg	Content / bag
Volume (ml)	22.32	1875
Calorie (kCal)	17.08	1435
Protein (g)	0.71	60
Carbohydrate (g)	1.43	120
Lipid (g)	0.89	75
Sodium (mmol)	0.89	75
Potassium (mmol)	0.54	45
Calcium (mmol)	0.05	4.5
Magnesium (mmol)	0.05	4.5
Phosphate (mmol)	0.13	11.3
Chloride (mmol)	0.86	72
Acetate (mmol)	0.71	60
Trace Element (ml)	NA	NA
Combine Vitamin (ml)	NA	NA
Water Soluble Vitamin (ml)	NA	NA
Fat Soluble Vitamin (ml)	NA	NA

Infusion Over: 24 hr **Infusion Rate:** 78.13 ml/hr

Prescriber: _____ **Frequency:** OD (once daily)

Designation: Pegawai Perubatan Pakar **Infusion Route:** Central

Department: General Medicine **Remarks:**

Figure 4.3-10 Sample of PN Prescription

Note

Sample of PN prescription is as shown in Figure 4.3-10.

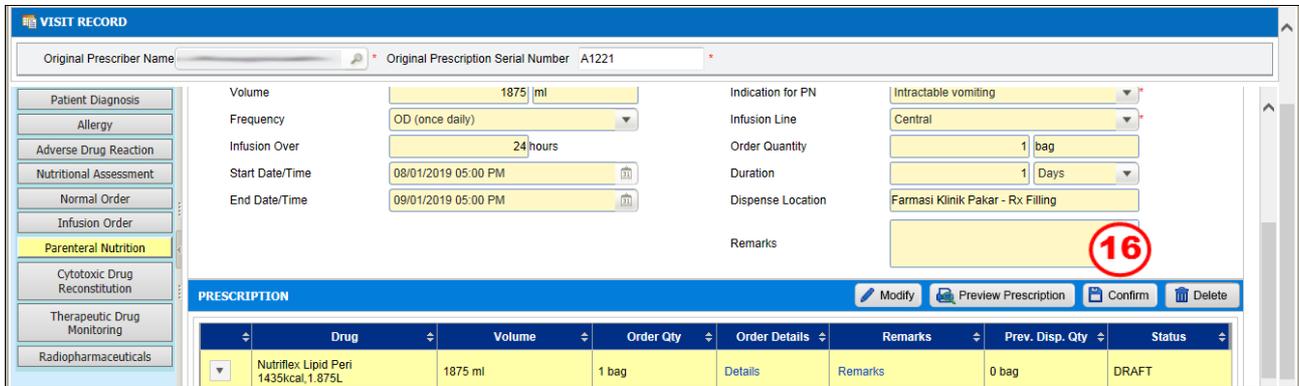


Figure 4.3-11 PN Order : Commercial

STEP 16

Click on the  button to confirm record order and alert message will be appeared as per Figure 4.3-11

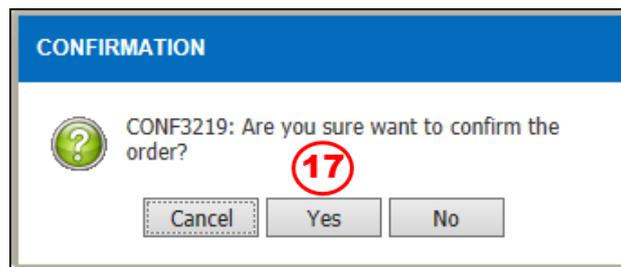
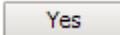
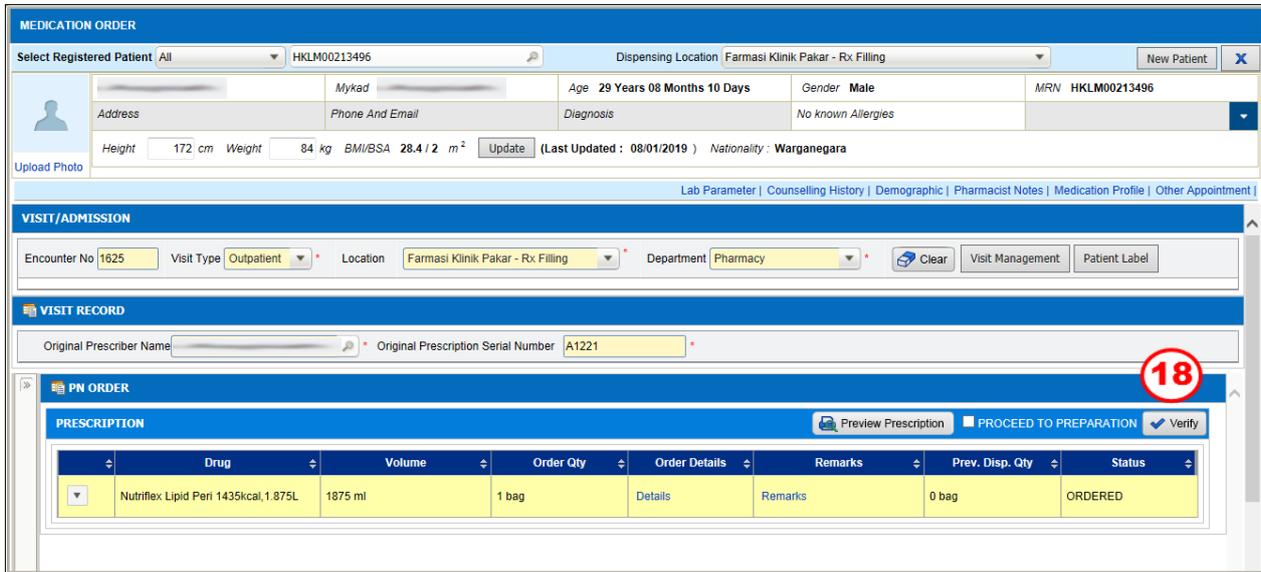


Figure 4.3-12 Information Alert Message

STEP 17

Click on the  button to confirm ordered saved and to verify PN Order screen will be appeared as per Figure 4.3-12



MEDICATION ORDER

Select Registered Patient: All | HKL00213496 | Dispensing Location: Farmasi Klinik Pakar - Rx Filling | New Patient X

Mykad: [Redacted] | Age: 29 Years 08 Months 10 Days | Gender: Male | M/RN: HKLM00213496

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 84 kg | BMI/BSA: 28.4 / 2 m² | Update (Last Updated: 08/01/2019) | Nationality: Warganegara

VISIT/ADMISSION

Encounter No: 1625 | Visit Type: Outpatient | Location: Farmasi Klinik Pakar - Rx Filling | Department: Pharmacy | Clear | Visit Management | Patient Label

VISIT RECORD

Original Prescriber Name: [Redacted] | Original Prescription Serial Number: A1221

PN ORDER

PRESCRIPTION | Preview Prescription | PROCEED TO PREPARATION | Verify

Drug	Volume	Order Qty	Order Details	Remarks	Prev. Disp. Qty	Status
Nutriflex Lipid Peri 1435kcal, 1.875L	1875 ml	1 bag	Details	Remarks	0 bag	ORDERED

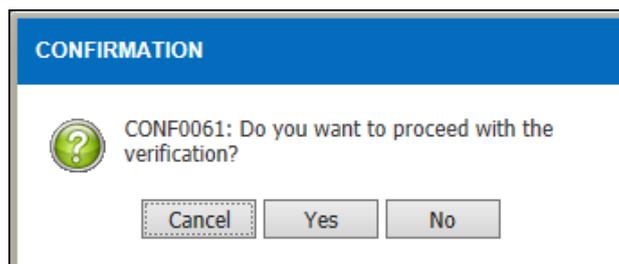
Figure 4.3-13 PN Order : Verification

STEP 18

Click on the  button to verify the order and alert message will be displayed as per Figure 4.3-13

Note

- Click on the  button to confirm the verification.
- Verified order will be flowed to preparation stage.

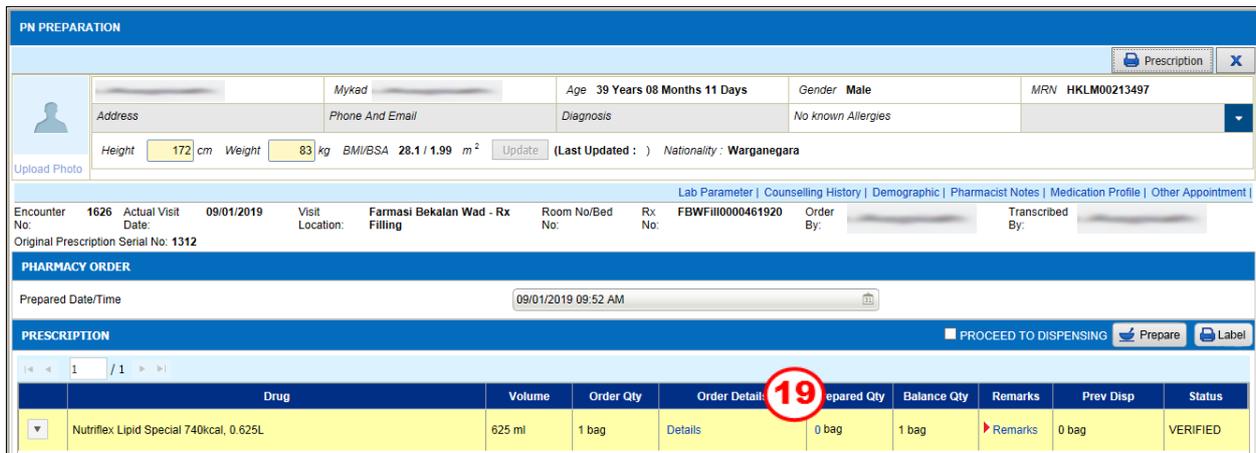


CONFIRMATION

CONF0061: Do you want to proceed with the verification?

Cancel Yes No

Figure 4.3-14 Confirmation Alert Message

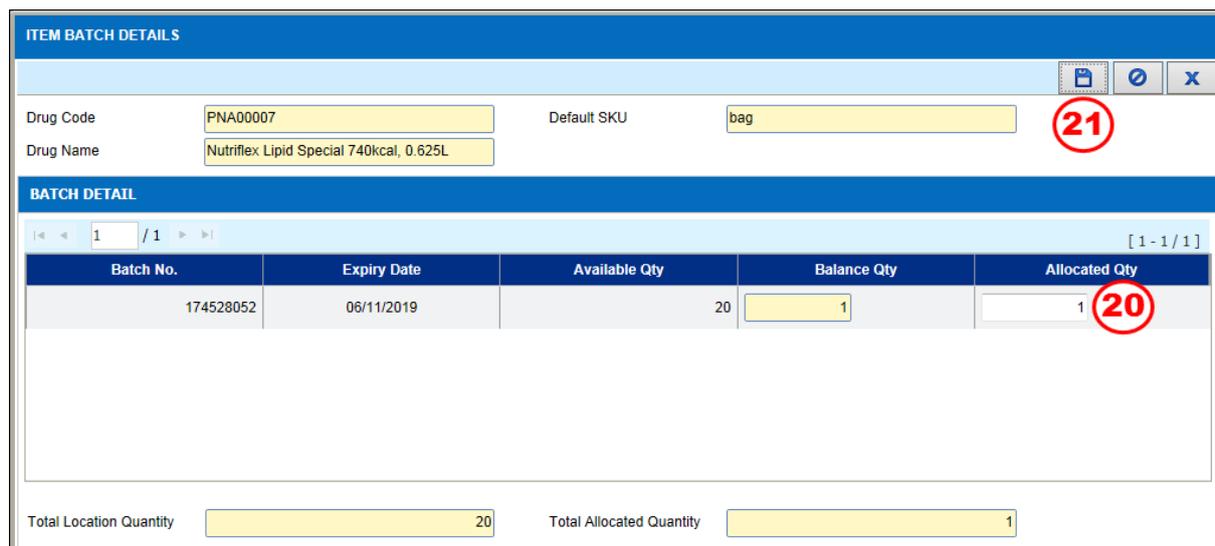


Drug	Volume	Order Qty	Order Detail	Prepared Qty	Balance Qty	Remarks	Prev Disp	Status
Nutriflex Lipid Special 740kcal, 0.625L	625 ml	1 bag	Details	0 bag	1 bag	Remarks	0 bag	VERIFIED

Figure 4.3-15 PN Preparation

STEP 19

Click on the **0 bag** link to allocate quantity and 'Item Batch Details' screen will be displayed as per Figure 4.3-15



Batch No.	Expiry Date	Available Qty	Balance Qty	Allocated Qty
174528052	06/11/2019	20	1	1

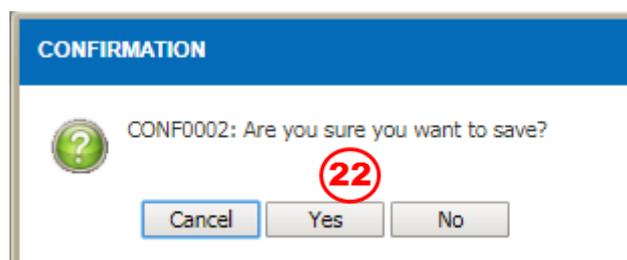
Figure 4.3-16 Item Batch Details

STEP 20

Enter **Allocated Qty**

STEP 21

Click on the  button to save record



CONFIRMATION

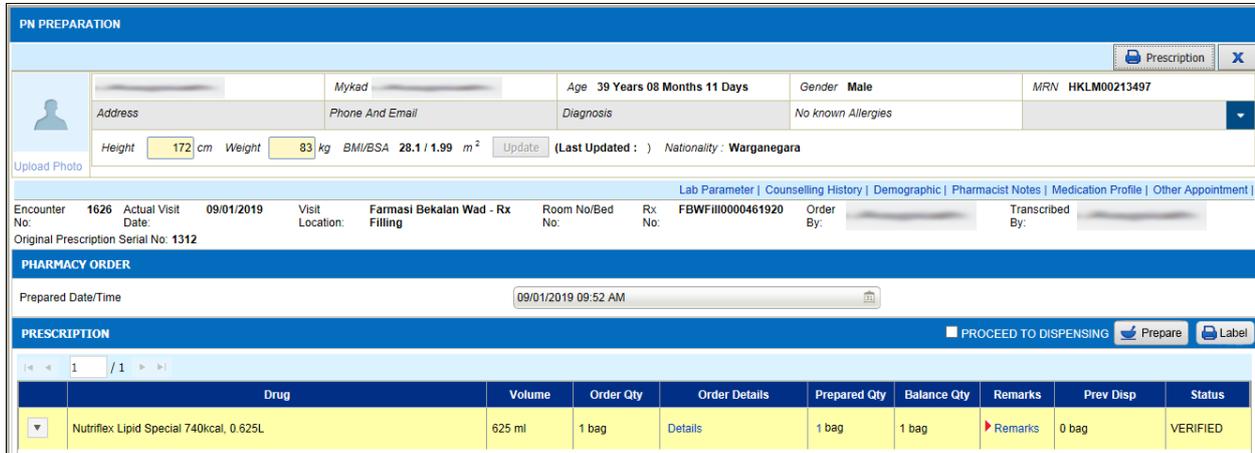
CONF0002: Are you sure you want to save?

Cancel Yes No

Figure 4.3-17 Confirmation Alert Message

STEP 22

Click on the button to confirm save



PN PREPARATION

Prescription

Mykad: [Redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: [Redacted] Rx No: FBWFI0000461920 Order By: [Redacted] Transcribed By: [Redacted]

Original Prescription Serial No: 1312

PHARMACY ORDER

Prepared Date/Time: 09/01/2019 09:52 AM

PRESCRIPTION PROCEED TO DISPENSING

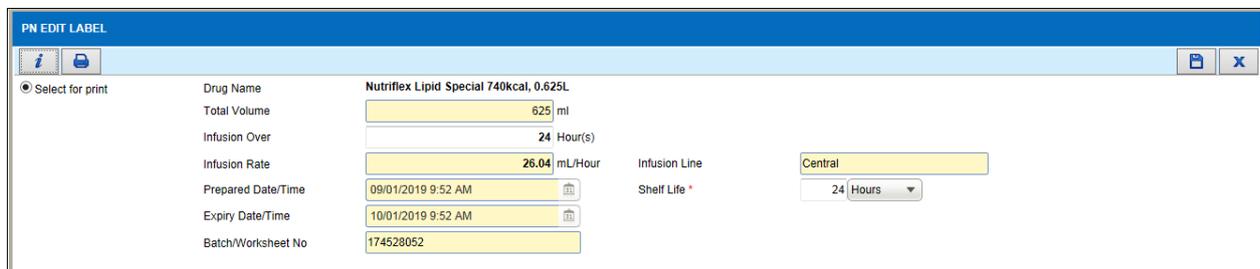
Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Remarks	Prev Disp	Status
Nutriflex Lipid Special 740kcal, 0.625L	625 ml	1 bag	Details	1 bag	1 bag	Remarks	0 bag	VERIFIED

Figure 4.3-18 PN Preparation

Note

Edit Label

Click on the button to edit label and 'PN Edit Label' window will display as per Figure 4.3-18.



PN EDIT LABEL

Select for print

Drug Name: Nutriflex Lipid Special 740kcal, 0.625L

Total Volume: 625 ml

Infusion Over: 24 Hour(s)

Infusion Rate: 26.04 mL/Hour

Prepared Date/Time: 09/01/2019 9:52 AM

Expiry Date/Time: 10/01/2019 9:52 AM

Batch/Worksheet No: 174528052

Infusion Line: Central

Shelf Life: 24 Hours

Figure 4.3-19 PN Preparation

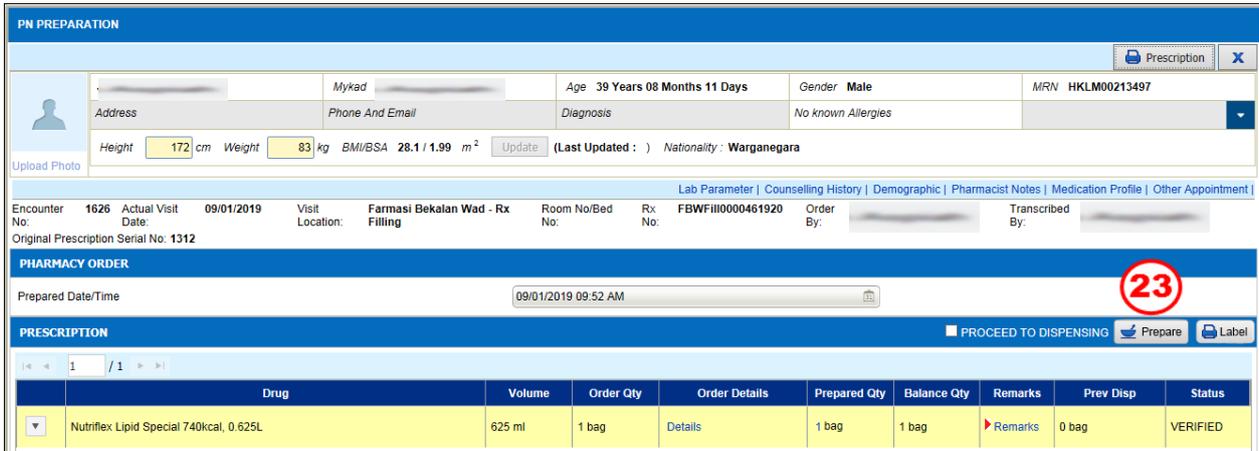
Note

- Select the Select for print radio button to print label.
- User allows to edit **Infusion Over** and enter/select **Shelf Life** field.
- **Prepared Date/Time** and **Expiry Date/Time** field will be automatically displayed after enter the **Shelf Life** field.
- **Drug Name**, **Total Volume**, **Infusion Rate** and **Batch/Worksheet No** field will be automatically displayed by system.
- The button to print label.

- The button to close 'PN Edit Label' window.
- Sample PN Label as per Figure 4.3-20.

HOSPITAL KULIM		
Smof Kabiven Central 1600kcal, 1.5L with Additive		
NAME : ██████████		
AGE : 31 Years 10 Months 20 Days		
MRN : HKLM00198330	WARD/BED NO: Intensive Care Unit (ICU)	
Product Volume	1481	ml/bag
Ordered Volume	1481	ml/bag
Content	/ kg	/ bag
Protein (g)	0.94	75
Dextrose (g)	2.34	187
Lipid (g)	0.7	56
Sodium (mmol)	0.75	60
Potassium (mmol)	0.56	45
Calcium (mmol)	0.05	3.8
Magnesium (mmol)	0.19	15.5
Phosphate (mmol)	0.24	19
Chloride (mmol)	0.65	52
Acetate (mmol)	1.96	157
Trace (ml)	0	0
Vitamins (ml)	0	0
Calories (kcal)	20	1600
Osmolarity (mOsm/l)	18.85	1508.37
L-Glutamin (ml)	0	0
Date and Time of Administration :		
Infusion Rate	61.71	ml/Hrs
Worksheet ID A001-100719	Expiry Date 11/07/2019	Price : RM
Do not use if any visible solid particles, growth or precipitation appears		
Store in refrigerator (2-8 °C). Protect from light (Once open use within 24 Hours) Ensure PN Solution is at room temperature before infusion		
TO BE INFUSED : CENTRAL LINE		

Figure 4.3-20 Sample PN Label



PN PREPARATION

Prescription X

Mykad: [Redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: [Redacted] Rx No: FBWFIII0000461920 Order By: [Redacted] Transcribed By: [Redacted]

Original Prescription Serial No: 1312

PHARMACY ORDER

Prepared Date/Time: 09/01/2019 09:52 AM

PRESCRIPTION PROCEED TO DISPENSING Prepare Label

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Remarks	Prev Disp	Status
Nutriflex Lipid Special 740kcal, 0.625L	625 ml	1 bag	Details	1 bag	1 bag	Remarks	0 bag	VERIFIED

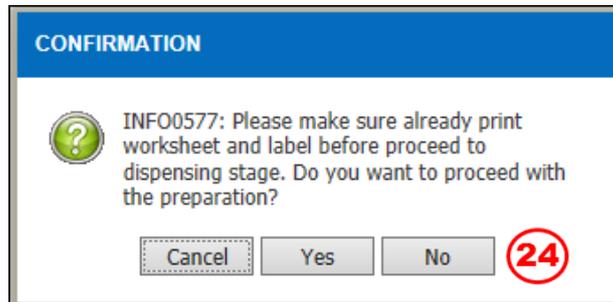
Figure 4.3-21 Sample PN Label

STEP 23

Click on the  button to prepare PN order

Note

Proceed to Dispensing function will allow user to go the next stage screen for each patient record.



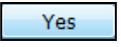
CONFIRMATION

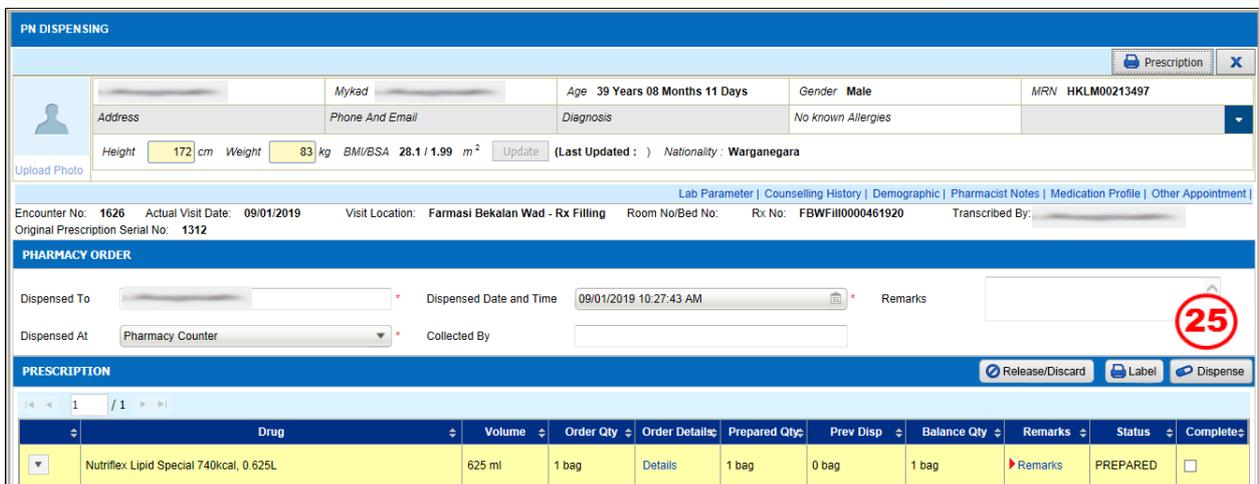
INFO0577: Please make sure already print worksheet and label before proceed to dispensing stage. Do you want to proceed with the preparation?

Cancel Yes No

Figure 4.3-22 Confirmation Alert Message

STEP 24

Click on the  button to confirm prepare order



PN DISPENSING

Prescription X

Mykad: [Redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: [Redacted] Rx No: FBWFIII0000461920 Transcribed By: [Redacted]

Original Prescription Serial No: 1312

PHARMACY ORDER

Dispensed To: [Redacted] Dispensed Date and Time: 09/01/2019 10:27:43 AM Remarks: [Redacted]

Dispensed At: Pharmacy Counter Collected By: [Redacted]

PRESCRIPTION Release/Discard Label Dispense

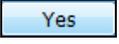
Drug	Volume	Order Qty	Order Details	Prepared Qty	Prev Disp	Balance Qty	Remarks	Status	Complete
Nutriflex Lipid Special 740kcal, 0.625L	625 ml	1 bag	Details	1 bag	0 bag	1 bag	Remarks	PREPARED	<input type="checkbox"/>

Figure 4.3-23 PN Dispensing

STEP 25

Click on the  button and alert message will be displayed as per Figure 4.3-23

STEP 26

Click on the  button to confirm prepare order

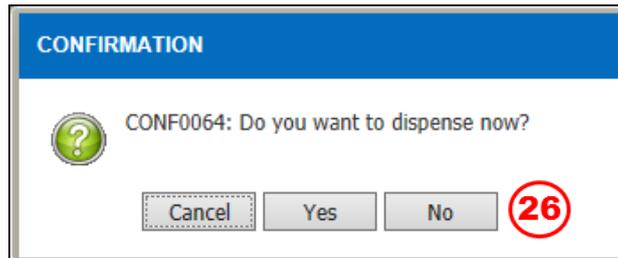
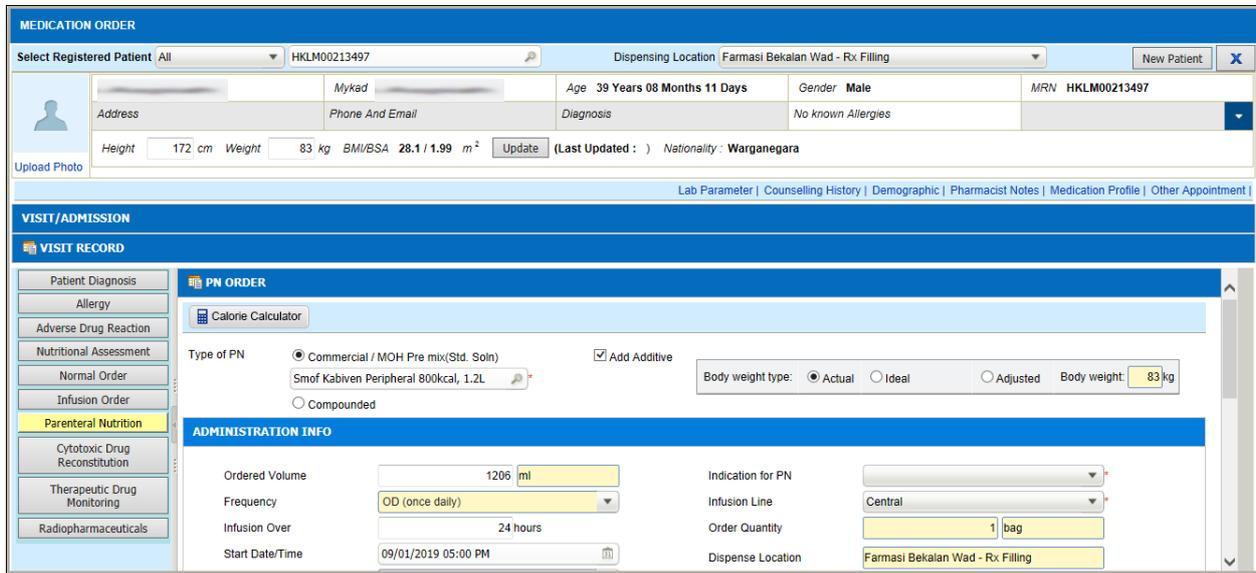


Figure 4.3-24 Confirmation Alert Message

Note

User only can do **Hold/Resume** Order and **Release/Discard** Order at dispensing activity stage.

4.4 Commercial/MOH Pre Mix (Std. Soln) Add Additive



MEDICATION ORDER

Select Registered Patient: All | HKLM00213497 | Dispensing Location: Farmasi Bekalan Wad - Rx Filling | New Patient

Mykad: [Redacted] | Age: 39 Years 08 Months 11 Days | Gender: Male | MRN: HKLM00213497

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 83 kg | BMI/BSA: 28.1 / 1.99 m² | Update (Last Updated:) | Nationality: Warganegara

VISIT/ADMISSION

VISIT RECORD

PN ORDER

Calorie Calculator

Type of PN: Commercial / MOH Pre mix(Std. Soln) Add Additive Compounded

Smof Kabiven Peripheral 800kcal, 1.2L

Body weight type: Actual Ideal Adjusted | Body weight: 83 kg

ADMINISTRATION INFO

Ordered Volume: 1206 ml | Indication for PN: [Redacted]

Frequency: OD (once daily) | Infusion Line: Central

Infusion Over: 24 hours | Order Quantity: 1 bag

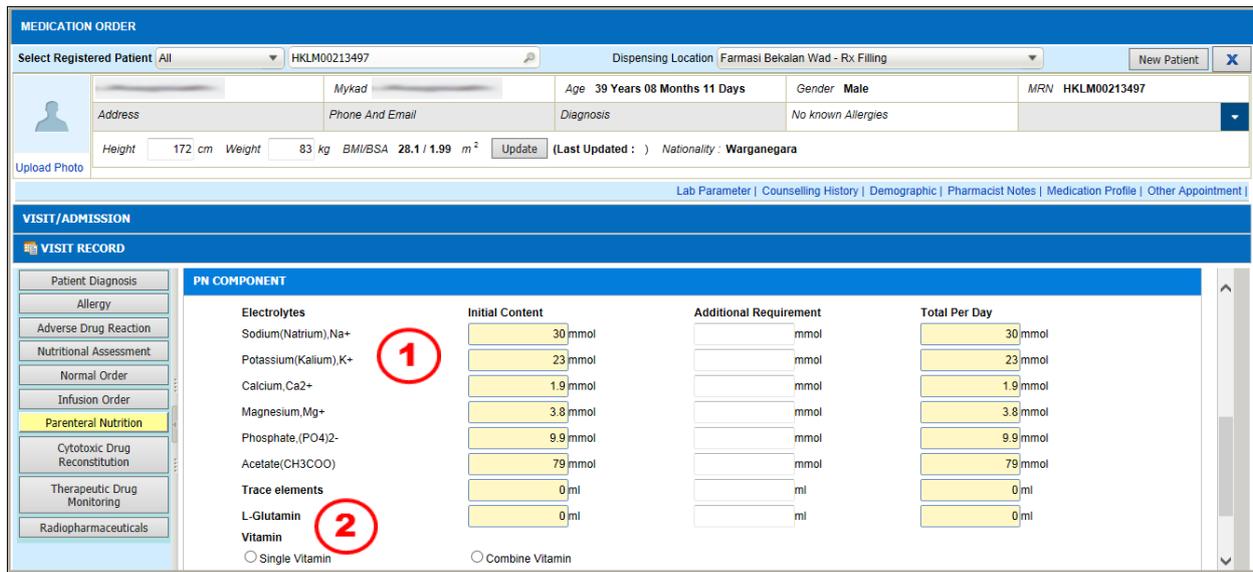
Start Date/Time: 09/01/2019 05:00 PM | Dispense Location: Farmasi Bekalan Wad - Rx Filling

Figure 4.4-1 Medication Order

‘Commercial Add Additive’ function allows user to order ready made product with additional PN component

Note

- Repeat **STEP 1 – STEP 5** at section [4.3.Commercial/MOH Pre mix \(Std Soln\)](#).
- Select product and check on the ‘Add Additive’ checkbox.
- Repeat **STEP 6 – STEP 12** at section [4.3.Commercial/MOH Pre mix \(Std Soln\)](#)



MEDICATION ORDER

Select Registered Patient: All | HKLM00213497 | Dispensing Location: Farmasi Bekalan Wad - Rx Filling | New Patient

Mykad: [Redacted] | Age: 39 Years 08 Months 11 Days | Gender: Male | MRN: HKLM00213497

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 83 kg | BMI/BSA: 28.1 / 1.99 m² | Update (Last Updated:) | Nationality: Warganegara

VISIT/ADMISSION

VISIT RECORD

Patient Diagnosis	PN COMPONENT	Initial Content	Additional Requirement	Total Per Day
Electrolytes				
	Sodium(Natrium),Na+	30 mmol	mmol	30mmol
	Potassium(Kalium),K+	23 mmol	mmol	23mmol
	Calcium,Ca2+	1.9 mmol	mmol	1.9mmol
	Magnesium,Mg+	3.8 mmol	mmol	3.8mmol
	Phosphate,(PO4)2-	9.9 mmol	mmol	9.9mmol
	Acetate(CH3COO)	79 mmol	mmol	79mmol
	Trace elements	0 ml	ml	0/ml
	L-Glutamin	0 ml	ml	0/ml
	Vitamin			
	<input type="radio"/> Single Vitamin			
	<input type="radio"/> Combine Vitamin			

Figure 4.4-2 Single Vitamin

STEP 1

Enter value of **Electrolytes** that require for patient per day

Note

- User need to enter total electrolytes required for patient per day.
- All value must be more than per bag ordering.
- All value in all **Per Bag (Per Ordering)** field will be automatically default by system.

STEP 2

Select **Single Vitamin** radio button

Note

- **Water soluble** and **Fat soluble** field will be automatically displayed as per Figure 4.4-2.
- Enter value of **Water soluble** and **Fat soluble**.

Or

Select **Multi Vitamin** radio button

Note

Vitamin(Water and Fat soluble) field will be automatically displayed as per Figure 4.4-3.



Vitamin

Single Vitamin Multi Vitamin

Vitamin(Water and Fat Soluble) 10 ml 0 ml

Figure 4.4-3 Multivitamin

PN COMPONENT			
	Initial Content	Additional Requirement	Total Per Day
Electrolytes			
Sodium(Natrium),Na+	<input type="text" value="30"/> mmol	<input type="text"/> mmol	<input type="text" value="30"/> mmol
Potassium(Kalium),K+	<input type="text" value="23"/> mmol	<input type="text"/> mmol	<input type="text" value="23"/> mmol
Calcium,Ca2+	<input type="text" value="1.9"/> mmol	<input type="text" value="3.1"/> mmol	<input type="text" value="5"/> mmol
Magnesium,Mg+	<input type="text" value="3.8"/> mmol	<input type="text" value="1.2"/> mmol	<input type="text" value="5"/> mmol
Phosphate,(PO4)2-	<input type="text" value="9.9"/> mmol	<input type="text"/> mmol	<input type="text" value="9.9"/> mmol
Acetate(CH3COO)	<input type="text" value="70"/> mmol	<input type="text"/> mmol	<input type="text" value="70"/> mmol
Trace elements	<input type="text" value="0"/> ml	<input type="text"/> ml	<input type="text" value="0"/> ml
L-Glutamin	<input type="text" value="0"/> ml	<input type="text"/> ml	<input type="text" value="0"/> ml
Vitamin			
<input checked="" type="radio"/> Single Vitamin	<input type="radio"/> Combine Vitamin		
Water soluble	<input type="text" value="0"/> ml	<input type="text"/> ml	<input type="text" value="0"/> ml
Fat soluble	<input type="text" value="0"/> ml	<input type="text"/> ml	<input type="text" value="0"/> ml

PRESCRIPTION Clear Draft Confirm 3

Figure 4.4-4 Medication Order

STEP 3

Click on the  button to confirm record order and alert message will be appeared as per Figure 4.4-4

CONFIRMATION



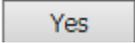
CONF3219: Are you sure want to confirm the order?

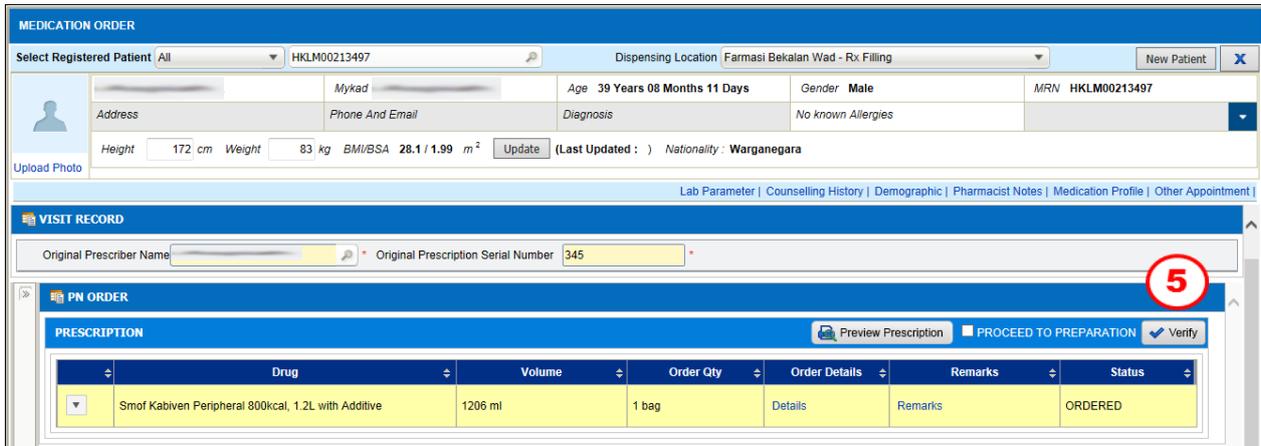
Cancel
Yes
No

4

Figure 4.4-5 Information Alert Message

STEP 4

Click on the  button to confirm ordered saved and to verify PN Order screen will be appeared as per Figure 4.4-5



MEDICATION ORDER

Select Registered Patient: All | HCLM00213497 | Dispensing Location: Farmasi Bekalan Wad - Rx Filling | New Patient

Mykad: [Redacted] | Age: 39 Years 08 Months 11 Days | Gender: Male | M/RN: HCLM00213497

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 83 kg | BMI/BSA: 28.1 / 1.99 m² | Update (Last Updated:) | Nationality: Warganegara

VISIT RECORD

Original Prescriber Name: [Redacted] | Original Prescription Serial Number: 345

PN ORDER

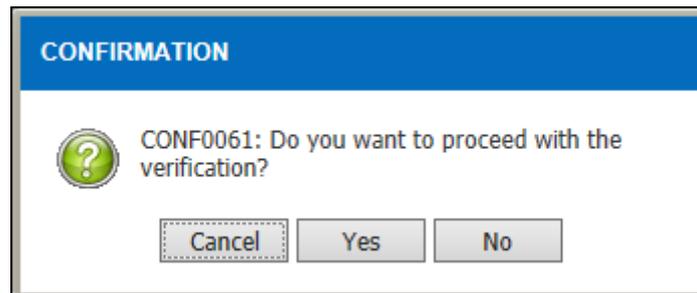
Preview Prescription | PROCEED TO PREPARATION | **Verify**

Drug	Volume	Order Qty	Order Details	Remarks	Status
Smaf Kabiven Peripheral 800kcal, 1.2L with Additive	1206 ml	1 bag	Details	Remarks	ORDERED

Figure 4.4-6 PN Order : Verify

STEP 5

Click on the  button to verify the order and alert message will be displayed as per Figure 4.4-6



CONFIRMATION

 CONF0061: Do you want to proceed with the verification?

Cancel Yes No

Figure 4.4-7 Confirmation Alert Message

Note

- Click on the  button to confirm the verification.
- Verified order will be flowed to preparation stage.



PN PREPARATION

Mykad: [redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: [redacted] Rx No: FBWFI0000461921 Order By: [redacted] Transcribed By: [redacted]

Original Prescription Serial No: 345

PHARMACY ORDER

Prepared Date/Time: 09/01/2019 11:36 AM

PRESCRIPTION

PROCEED TO DISPENSING Prepare Worksheet Label

Drug	Volume	Order Qty	Order De	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
Smof Kabiven Peripheral 800kcal, 1.2L with Additive	1206 ml	1 bag	Details	0 bag	1 bag	Details	Remarks	0 bag	VERIFIED

Figure 4.4-8 PN Preparation

STEP 6

Click on the **0 bag** link to allocate quantity and 'Item Batch Details' screen will be displayed as per Figure 4.4-8

ITEM BATCH DETAILS

Drug Code: PNA00019 Default SKU: bag

Drug Name: Smof Kabiven Peripheral 800kcal, 1.2L

BATCH DETAIL

Batch No.	Expiry Date	Available Qty	Balance Qty	Allocated Qty
10LD8419	31/03/2019	8	1	1
10MB1573	31/01/2020	24	0	0

Total Location Quantity: 32 Total Allocated Quantity: 1

Figure 4.4-9 Item Batch Details

STEP 7

Enter **Allocated Qty**

STEP 8

Click on the  button to save record

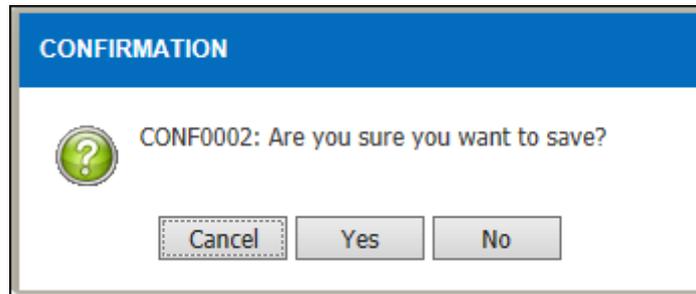
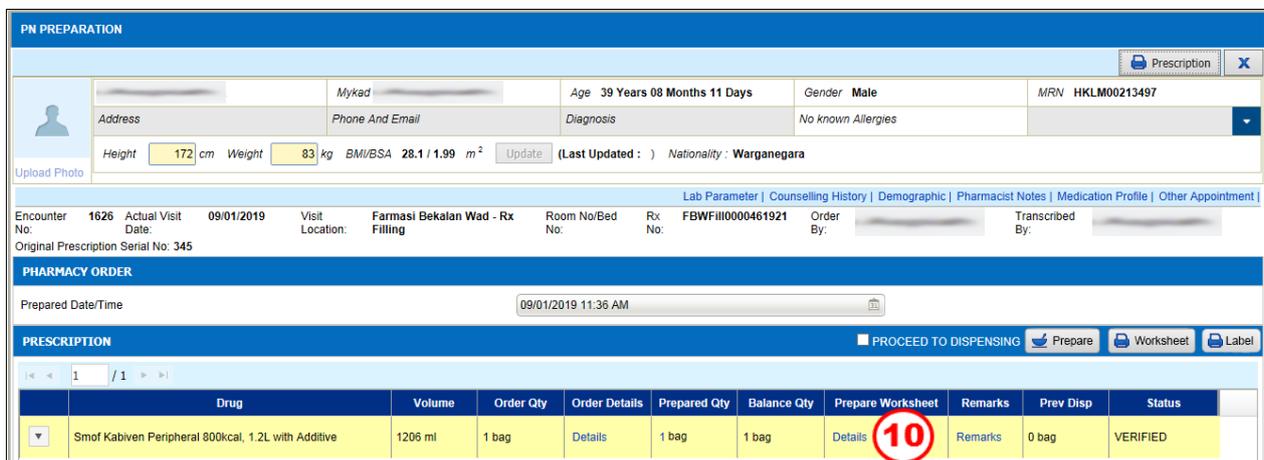


Figure 4.4-10 Confirmation Alert Message

STEP 9

Click on the  button to confirm save



The screenshot shows the "PN PREPARATION" interface. At the top, there is a "Prescription" button with a close icon. Below this is a patient information section with fields for Mykad, Age (39 Years 08 Months 11 Days), Gender (Male), MRN (HKL00213497), Address, Phone And Email, Diagnosis, and No known Allergies. There are also fields for Height (172 cm), Weight (83 kg), BMI/BSA (28.1 / 1.99 m²), and Nationality (Warganegara). Below this is a "PHARMACY ORDER" section with a "Prepared Date/Time" field set to 09/01/2019 11:36 AM. At the bottom is a "PRESCRIPTION" table with a "PROCEED TO DISPENSING" checkbox and buttons for "Prepare", "Worksheet", and "Label". The table has columns for Drug, Volume, Order Qty, Order Details, Prepared Qty, Balance Qty, Prepare Worksheet, Remarks, Prev Disp, and Status. The first row shows "Smof Kabiven Peripheral 800kcal, 1.2L with Additive" with a volume of 1206 ml, 1 bag, and a status of "VERIFIED". A red circle with the number "10" is overlaid on the "Prepare Worksheet" button in the table.

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
Smof Kabiven Peripheral 800kcal, 1.2L with Additive	1206 ml	1 bag	Details	1 bag	1 bag	Details 10	Remarks	0 bag	VERIFIED

Figure 4.4-11 PN Preparation

STEP 10

Click on the *Prepare Worksheet*  button to prepare worksheet as per Figure 4.4-11

PREPARE WORKSHEET

Intervention Auto Allocation 📄 ✕

DETAIL

Macronutrient
Glucose g
Lipid g
Protein g

Vitamin
Vitamin Solution ml
Water soluble ml
Fat soluble ml

Trace elements ml
Acetate mmol
L-Glutamin ml
Phosphate (PO4)2- mmol

Electrolytes
Sodium(Natrium),Na+ mmol
Potassium(Kalium),K+ mmol

Calcium,Ca2+ mmol
Magnesium,Mg+ mmol

Drug selected	Volume (ml)	Order Quantity	Allocated Quantity	Calorie (kcal)	Osmolarity (mOsmol)	Content						
						Acetate (mmol)	Phosphate (mmol)	Sodium (mmol)	Potassium (mmol)	Calcium (mmol)	Magnesium (mmol)	Chloride (mmol)
	0			0	0	0	0	0	0	0	0	0
	0			0	0	0	0	0	0	0	0	0
	0			0	0	0	0	0	0	0	0	0
	0			0	0	0	0	0	0	0	0	0
	0			0	0	0	0	0	0	0	0	0
Magnesium Sulphate 50% Injection (49.3%/5mL)	3	1 amp	1amp	0	13.8	0	0	0	0	0	6	0
	0			0	0	Trace Elements						
	0			0	0	Combine Vitamin (Water & Fat Soluble)						
	0			0	0	Water Soluble Vitamins						
	0			0	0	Fat Soluble Vitamins						
	0			0	0	L-Glutamin						
Total Preparation	3			0	4600 mOsmol/L	0	0	0	0	0	6	0

📄 Calculate

Figure 4.4-12 Prepare Worksheet

Note

- **Macronutrient, Vitamin field and Electrolytes field display the quantity to be added into the bag.**
- Click on the Calculate button to calculate PN content value.
- **Volume (ml), Order Quantity, Calorie (kcal), Osmolrity(mOsmol), Content and Total Preparation will be automatically calculated and displayed by system as per Figure 4.4-12.**
- **Calorie(kcal) will be added together with the additives amount**

PREPARE WORKSHEET

Intervention Auto Allocation 📄 ✕

DETAIL

Macronutrient
Glucose g
Lipid g
Protein g

Vitamin
Vitamin Solution ml
Water soluble ml
Fat soluble ml

Trace elements ml
Acetate mmol
L-Glutamin ml
Phosphate (PO4)2- mmol

Electrolytes
Sodium(Natrium),Na+ mmol
Potassium(Kalium),K+ mmol

Calcium,Ca2+ mmol
Magnesium,Mg+ mmol

Drug selected	Volume (ml)	Order Quantity	Allocated Quantity	Calorie (kcal)	Osmolarity (mOsmol)	Content						
						Acetate (mmol)	Phosphate (mmol)	Sodium (mmol)	Potassium (mmol)	Calcium (mmol)	Magnesium (mmol)	Chloride (mmol)
	0			0	0	0	0	0	0	0	0	0
	0			0	0	0	0	0	0	0	0	0
	0			0	0	0	0	0	0	0	0	0
	0			0	0	0	0	0	0	0	0	0
	0			0	0	0	0	0	0	0	0	0
Magnesium Sulphate 50% Injection (49.3%/5mL)	3	1 amp	1amp	0	13.8	0	0	0	0	0	6	0
	0			0	0	Trace Elements						
	0			0	0	Combine Vitamin (Water & Fat Soluble)						
	0			0	0	Water Soluble Vitamins						
	0			0	0	Fat Soluble Vitamins						
	0			0	0	L-Glutamin						
Total Preparation	3			0	4600 mOsmol/L	0	0	0	0	0	6	0

📄 Calculate

11

Figure 4.4-13 Prepare Worksheet

STEP 11

Click on the 📄 button and confirmation pop up will appear as in figure 4.4-13

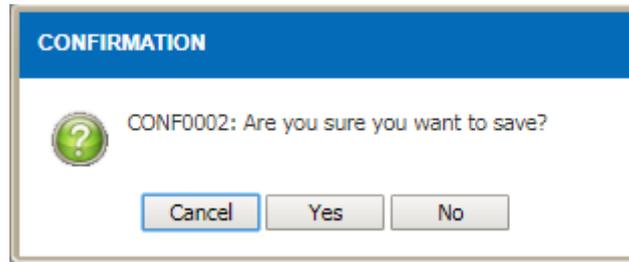
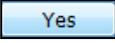
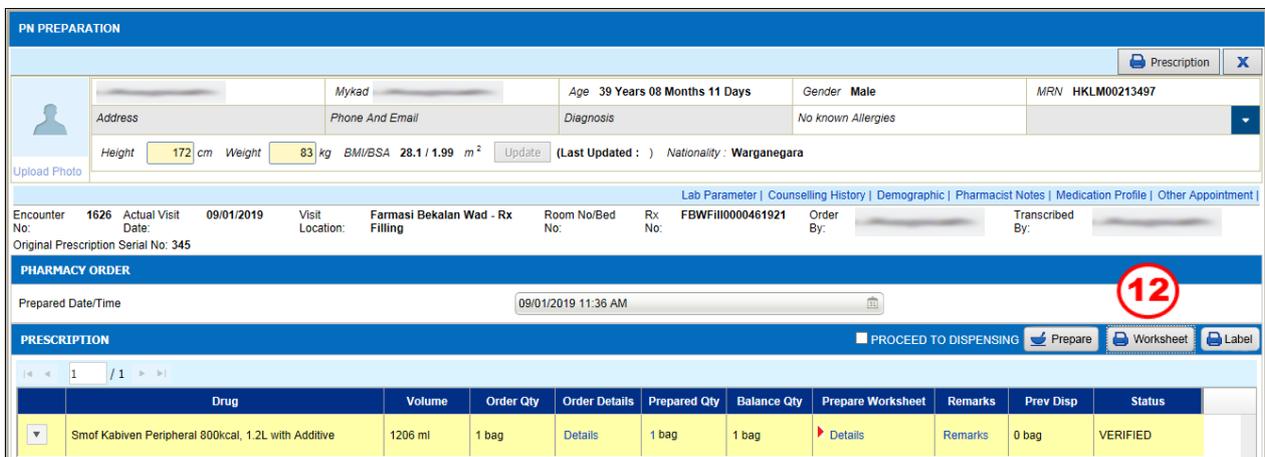


Figure 4.4-14 Confirmation Alert Message

Note

Click on the  button to save record



The screenshot shows the "PN PREPARATION" interface. At the top, there's a "Prescription" button. Below that, patient information is displayed: Mykad, Age (39 Years 08 Months 11 Days), Gender (Male), and MRN (HKL00213497). There are also fields for Address, Phone And Email, Diagnosis, and No known Allergies. Physical attributes include Height (172 cm), Weight (83 kg), and BMI/BSA (28.1 / 1.99 m²). A "PHARMACY ORDER" section shows the Prepared Date/Time as 09/01/2019 11:36 AM, with a red circle containing the number "12" next to it. Below this is a "PRESCRIPTION" table with a "PROCEED TO DISPENSING" button and "Prepare", "Worksheet", and "Label" buttons. The table has columns for Drug, Volume, Order Qty, Order Details, Prepared Qty, Balance Qty, Prepare Worksheet, Remarks, Prev Disp, and Status. One row is visible for "Smof Kabiven Peripheral 800kcal, 1.2L with Additive" with a volume of 1206 ml and 1 bag, with a status of "VERIFIED".

Figure 4.4-15 PN Preparation

STEP 12

Click on the  button to generate worksheet as per Figure 4.4-15



PARENTERAL NUTRITION WORKSHEET
MINISTRY OF HEALTH
HOSPITAL

Patient Name : Worksheet : A001-090119
 MRN : HKLM00213497 Prepared Date/Time : 09/01/2019 12:02 PM
 Ward/Bed No : Farmasi Bekalan Wad - Rx Filling Prescription # : FBWFI0000461921
 Age : 39 Years 08 Months 11 Days
 Gender : Male
 Body Weight : 83 kg

DRUG NAME	VOLUME (ml)	QUANTITY	BATCH NO	COMPONENT DETAIL (PER DAY)
Smof Kabiven Peripheral 800kcal, 1.2L	1206	1 bag	10LD8419	-
Magnesium Sulphate 50% Injection (49.3%/5mL)	0.6	1 ampoule	711061	1.2 mmol
Calcium Gluconate 10% Injection	13.72	2 ampoule	17441019	3.1 mmol
TPN Volume Bag	1220.32	1 Bag		

Worksheet Generated By : Date : 09/01/2019
 Worksheet and Label Checked By : Supervised By :
 Bag Prepared By :
 Final Product Checked By :

Figure 4.4-16 Sample PN Worksheet

Note

Sample of PN Worksheet as per Figure 4.4-16.

PN EDIT LABEL

Select for print

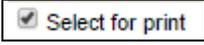
Drug Name: Smof Kabiven Peripheral 800kcal, 1.2L with Additive
 Product Volume: 1220.32 ml
 Ordered Volume: 1220.32 ml
 Infusion Over: Hour(s)
 Infusion Rate: mL/Hour
 Prepared Date/Time:
 Expiry Date/Time:
 Batch / Worksheet No:

Infusion Line:
 Shelf Life: Hours

Figure 4.4-17 PN Edit Label

Note

Edit Label

- Click on the  button to edit label and **PN Edit Label** window will display as per Figure 4.4-18.
- Select the  radio button to print label.
- User is allowed to edit **Infusion Over**, **Date Prepared** and **Shelf Life** field.
- **Expiry Date** will be automatically displayed after enter the **Shelf Life** field.
- **Drug Name**, **Total Volume**, **Infusion Rate** and **Batch No** will be automatically displayed by system.

HOSPITAL KULIM		
Smof Kabiven Central 1600kcal, 1.5L with Additive		
NAME : ██████████		
AGE : 31 Years 10 Months 20 Days		
MRN : HKLM00198330	WARD/BED NO: Intensive Care Unit (ICU)	
Product Volume	1481 ml/bag	
Ordered Volume	1481 ml/bag	
Content	/ kg	/ bag
Protein (g)	0.94	75
Dextrose (g)	2.34	187
Lipid (g)	0.7	56
Sodium (mmol)	0.75	60
Potassium (mmol)	0.56	45
Calcium (mmol)	0.05	3.8
Magnesium (mmol)	0.19	15.5
Phosphate (mmol)	0.24	19
Chloride (mmol)	0.65	52
Acetate (mmol)	1.96	157
Trace (ml)	0	0
Vitamins (ml)	0	0
Calories (kcal)	20	1600
Osmolarity (mOsm/l)	18.85	1508.37
L-Glutamin (ml)	0	0
Date and Time of Administration :		
Infusion Rate	61.71 ml/Hrs	
Worksheet ID A001-100719	Expiry Date 11/07/2019	Price : RM
Do not use if any visible solid particles, growth or precipitation appears		
Store in refrigerator (2-8 °C). Protect from light (Once open use within 24 Hours) Ensure PN Solution is at room temperature before infusion		
TO BE INFUSED : CENTRAL LINE		

Figure 4.4-18 PN Edit Label

PN PREPARATION

Prescription X

Mykad: [Redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: [Redacted] Rx No: FBWFi0000461921 Order By: [Redacted] Transcribed By: [Redacted]

Original Prescription Serial No: 345

PHARMACY ORDER

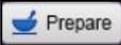
Prepared Date/Time: 09/01/2019 11:36 AM

PRESCRIPTION [Proceed to Dispensing] Prepare Worksheet Label

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
Smof Kabiven Peripheral 800kcal, 1.2L with Additive	1206 ml	1 bag	Details	1 bag	1 bag	Details	Remarks	0 bag	VERIFIED

Figure 4.4-19 PN Preparation

STEP 13

Click on the  button to prepare PN order

Note

Proceed to Dispensing function will allow user to go next stage screen for each patient record.

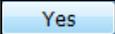
CONFIRMATION

INFO0577: Please make sure already print worksheet and label before proceed to dispensing stage. Do you want to proceed with the preparation?

Cancel Yes No

Figure 4.4-20 PN Confirmation Alert Message

STEP 14

Click on the  button to confirm prepare order

PN DISPENSING

Prescription X

Mykad: [Redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: [Redacted] Rx No: FBWFi0000461921 Transcribed By: [Redacted]

Original Prescription Serial No: 345

PHARMACY ORDER

Dispensed To: [Redacted] Dispensed Date and Time: 09/01/2019 12:38:32 PM Remarks: [Redacted]

Dispensed At: Pharmacy Counter Collected By: [Redacted]

PRESCRIPTION Release/Discard Worksheet Label Dispense

Drug	Volume	Order Qty	Order Details	Prepared Qty	Prev Disp	Balance Qty	Remarks	Status	Complete
Smof Kabiven Peripheral 800kcal, 1.2L with Additive	1206 ml	1 bag	Details	1 bag	0 bag	1 bag	Remarks	PREPARED	<input type="checkbox"/>

Figure 4.4-21 PN Dispensing

STEP 15

Click on the  button and alert message will be displayed as per Figure 4.4-21

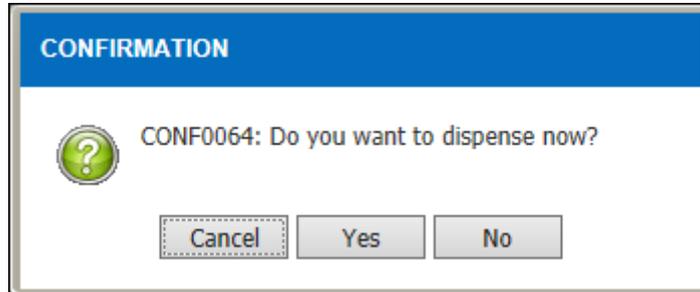
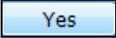
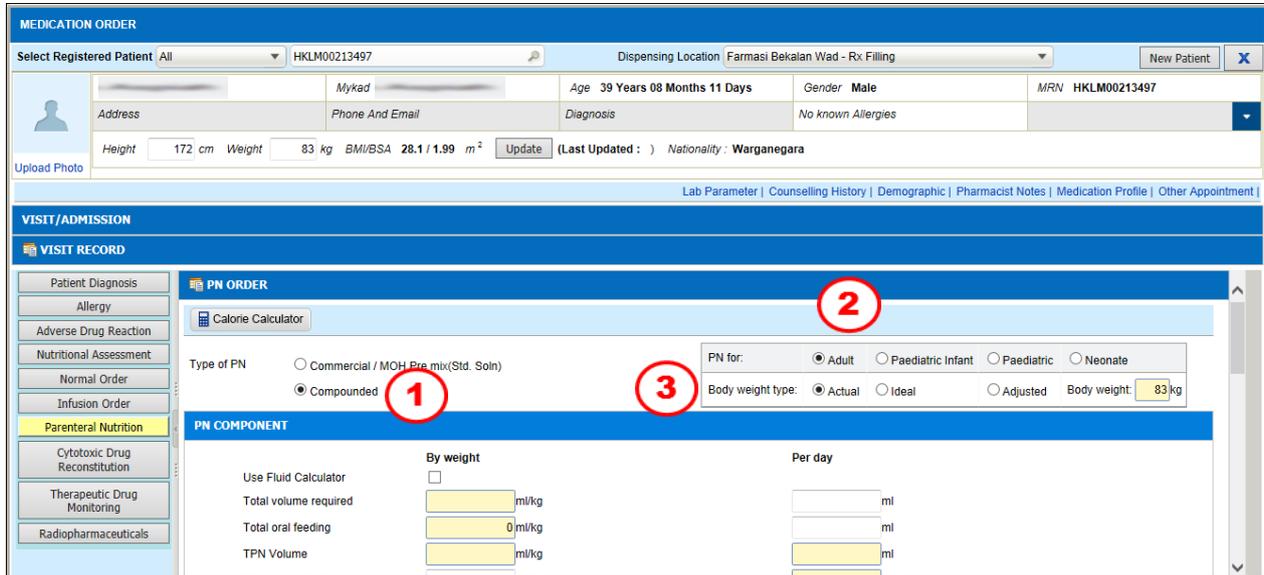


Figure 4.4-22 Confirmation Alert message

Note

- Click on the  button to dispense order.
- User can **Hold/Resume** Order and **Release/Discard** order at Dispensing activity.
- When release batch, drug and PN bag quantity will be returned back to inventory. When discard batch, drug and PN bag quantity will be deducted from inventory.
- Once drug already released or discarded, drug will be displayed back in Preparation screen for re-allocation of new batch qty.

4.5 Compounded (Adult)



The screenshot shows the 'MEDICATION ORDER' interface. At the top, there are fields for 'Select Registered Patient' (All), 'HKL00213497', and 'Dispensing Location' (Farmasi Bekalan Wad - Rx Filling). Below this is a patient information section with fields for Mykad, Age (39 Years 08 Months 11 Days), Gender (Male), MRN (HKL00213497), Address, Phone And Email, Diagnosis, and No known Allergies. A 'Height' field shows 172 cm, 'Weight' shows 83 kg, and 'BMI/BSA' shows 28.1 / 1.99 m². There is an 'Update' button and a 'Nationality' field set to 'Warganegara'. Below the patient info is a 'VISIT/ADMISSION' section with a 'VISIT RECORD' tab. The 'PN ORDER' section is active, showing a 'Calorie Calculator' button. Under 'Type of PN', the 'Compounded' radio button is selected (marked with a red circle 1). Under 'PN for', the 'Adult' radio button is selected (marked with a red circle 2). Under 'Body weight type', the 'Actual' radio button is selected (marked with a red circle 3). The 'PN COMPONENT' section has a table with columns 'By weight' and 'Per day'. The table contains rows for 'Use Fluid Calculator', 'Total volume required', 'Total oral feeding', and 'TPN Volume', each with input fields for ml/kg and ml.

Figure 4.5-1 Medication Order

PN Compounded allow user to order compounded PN with customized nutrition based on patient requirement.

STEP 1

Select on **Compounded** radio button for 'Type of PN'

STEP 2

Select on **Adult** radio button for 'PN For'

STEP 3

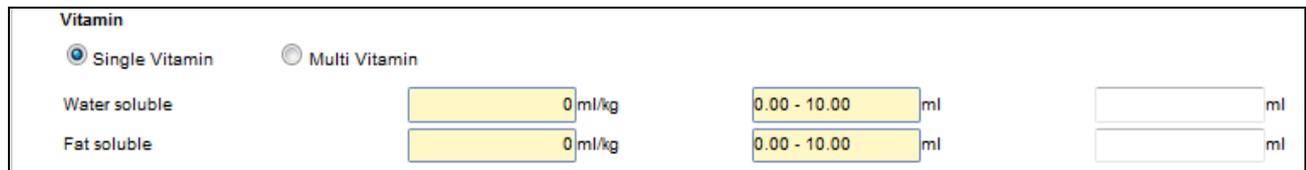
Select on the 'Body weight' type radio button to use for calculation either as:

- Actual
- Ideal
- Adjusted

Note

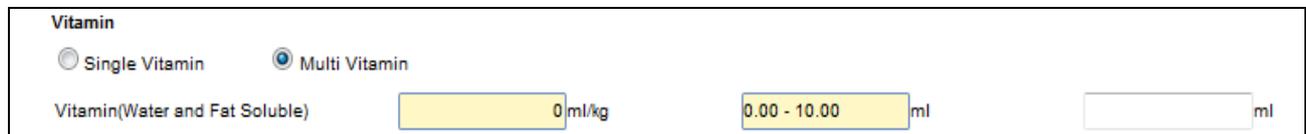
By default Body weight type show the **Actual** body weight of the patient. **Value** for **Body Weight (kg)** will change base on selected **Body Weight type**.

- **Chloride ,Cl⁻** and **Acetate (CH₃COO)** is optional function.
- All value **Per day** will automatically calculate and display.
- Enter value of the **Trace elements Per day**.
- Value **By Weight** will automatically calculate and display after enter the **Trace elements Per day** value.



The screenshot shows a form titled "Vitamin". It has two radio buttons: "Single Vitamin" (selected) and "Multi Vitamin". Below the radio buttons, there are two rows of input fields. The first row is labeled "Water soluble" and has three input fields: a yellow field with "0 ml/kg", a yellow field with "0.00 - 10.00 ml", and a white field with "ml". The second row is labeled "Fat soluble" and has three input fields: a yellow field with "0 ml/kg", a yellow field with "0.00 - 10.00 ml", and a white field with "ml".

Figure 4.5-3 Single Vitamin

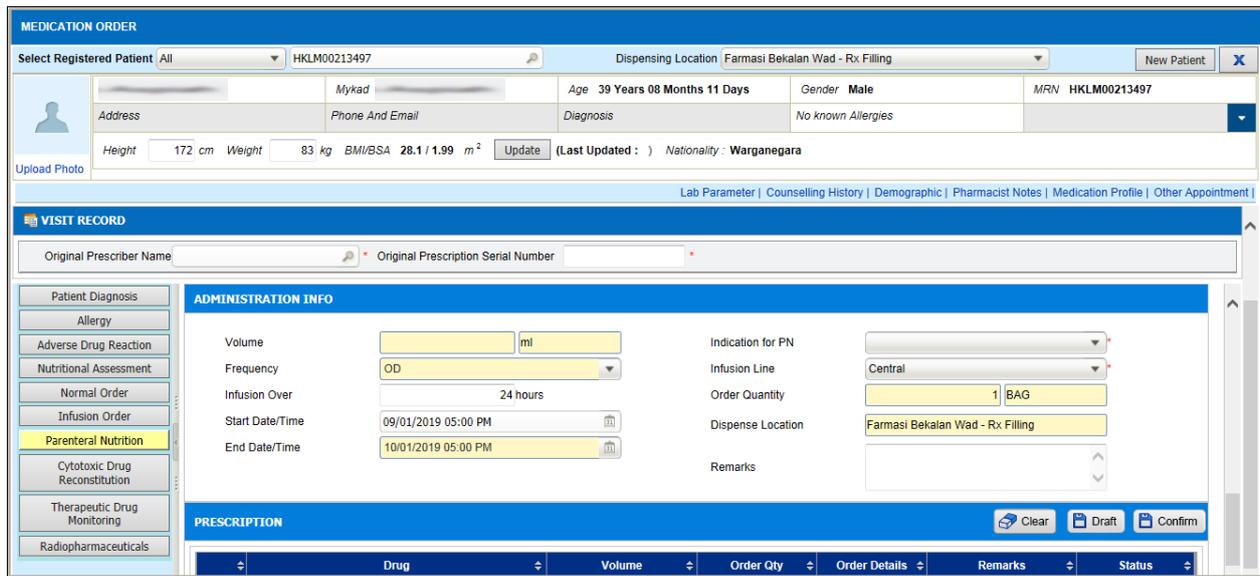


The screenshot shows a form titled "Vitamin". It has two radio buttons: "Single Vitamin" and "Multi Vitamin" (selected). Below the radio buttons, there is one row of input fields labeled "Vitamin(Water and Fat Soluble)". It has three input fields: a yellow field with "0 ml/kg", a yellow field with "0.00 - 10.00 ml", and a white field with "ml".

Figure 4.5-4 Multi Vitamin

Note

- Select either **Single Vitamin** or **Multivitamin** radio button.
 - Vitamin have 2 types vitamin:
 - **Single Vitamin**
 - **Multi Vitamin**
- If user select **Single Vitamin** radio button; **Water soluble** and **Fat soluble** field will automatically display by system as per Figure 4.5-3.
- If user select **Multi Vitamin** radio button; **Vitamin (Water and Fat Soluble)** field will automatically display by system as per Figure 4.5-4.



MEDICATION ORDER

Select Registered Patient: All | HKLM00213497 | Dispensing Location: Farmasi Bekalan Wad - Rx Filling | New Patient X

Mykad: [Redacted] | Age: 39 Years 08 Months 11 Days | Gender: Male | MRN: HKLM00213497

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 83 kg | BMI/BSA: 28.1 / 1.99 m² | Update (Last Updated:) | Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT RECORD

Original Prescriber Name: [Redacted] | Original Prescription Serial Number: [Redacted]

ADMINISTRATION INFO

Volume: [Redacted] ml | Indication for PN: [Redacted]

Frequency: OD | Infusion Line: Central

Infusion Over: 24 hours | Order Quantity: 1 BAG

Start Date/Time: 09/01/2019 05:00 PM | Dispense Location: Farmasi Bekalan Wad - Rx Filling

End Date/Time: 10/01/2019 05:00 PM | Remarks: [Redacted]

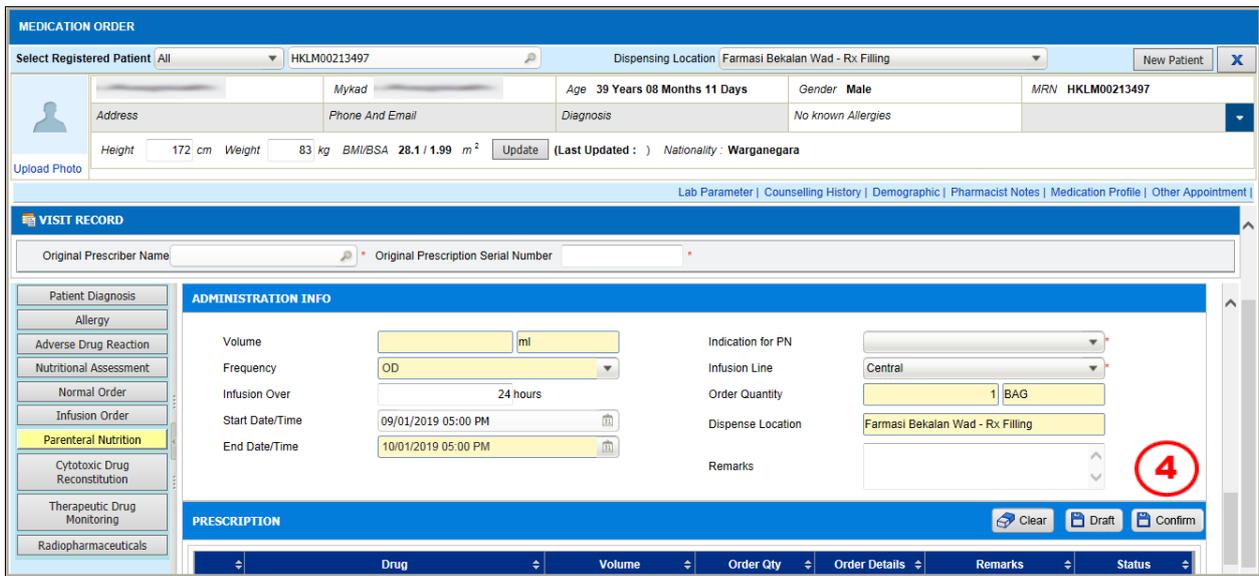
PRESCRIPTION [Clear] [Draft] [Confirm]

Drug	Volume	Order Qty	Order Details	Remarks	Status
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]

Figure 4.5-5 Administration Info

Note

- **Volume** will be automatically displayed by system and user is not allow to change at this field.
- **Infusion Line** will be automatically default to **Central** but user is allow to change at this field and select type of **Infusion Line** from the dropdown box.
- **Frequency** and **Duration** field will be automatically displayed and user is not allow to change this field.
- Default value for:
 - **Frequency** : OD (daily)
 - **Duration** : 1 day
- **Start Date/Time** will be automatically default to current date but still can be change by the user if applicable.
- **End Date/Time** will be displayed according to duration product given.
- **Infusion Over** will be automatically default to 24 hours but user is allow to change at this field.
- Select **Indication for PN** from the dropdown box.
- **Dispense Location** will be automatically default by system.
- Enter **Remarks** if applicable.



MEDICATION ORDER

Select Registered Patient: All | HKLM00213497 | Dispensing Location: Farmasi Bekalan Wad - Rx Filling | New Patient X

Mykad: [Redacted] | Age: 39 Years 08 Months 11 Days | Gender: Male | MRN: HKLM00213497

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 83 kg | BMI/BSA: 28.1 / 1.99 m² | Update (Last Updated:) | Nationality: Warganegara

Upload Photo

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT RECORD

Original Prescriber Name: [Redacted] | Original Prescription Serial Number: [Redacted]

ADMINISTRATION INFO

Volume: [Redacted] ml | Indication for PN: [Redacted]

Frequency: OD | Infusion Line: Central

Infusion Over: 24 hours | Order Quantity: 1 BAG

Start Date/Time: 09/01/2019 05:00 PM | Dispense Location: Farmasi Bekalan Wad - Rx Filling

End Date/Time: 10/01/2019 05:00 PM | Remarks: [Redacted]

PRESCRIPTION

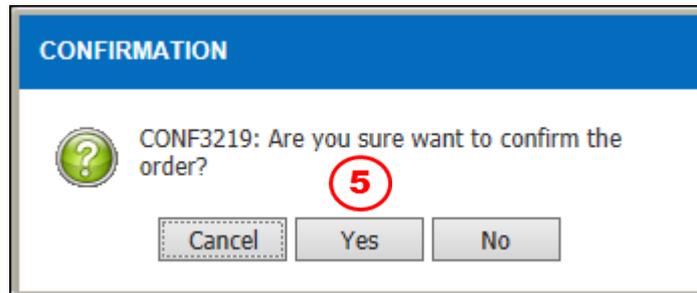
Clear | Draft | Confirm

Drug | Volume | Order Qty | Order Details | Remarks | Status

Figure 4.5-6 Prescription

STEP 4

Click on the  button to confirm record order and alert message will be appeared as per Figure 4.5-6



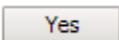
CONFIRMATION

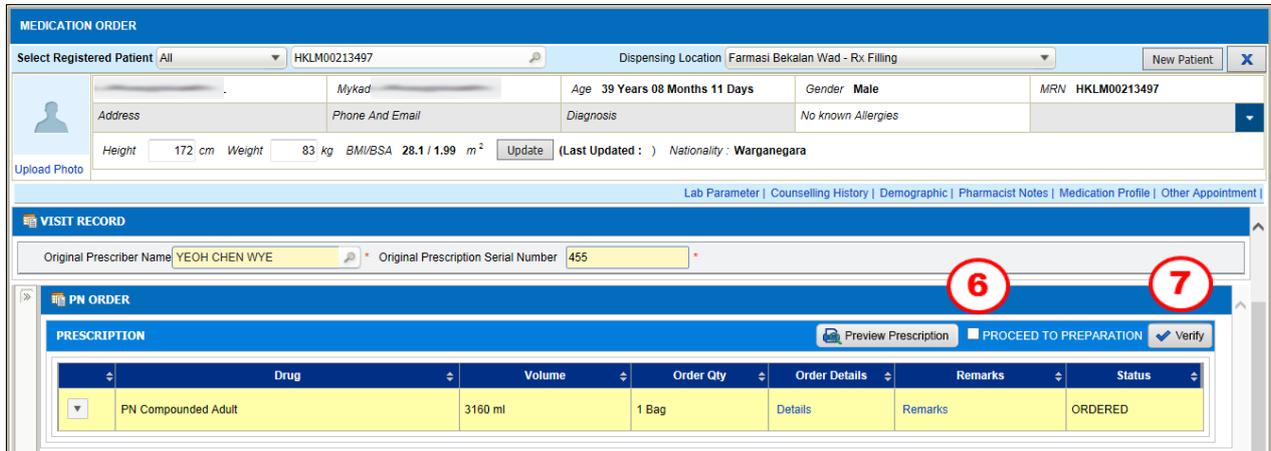
CONF3219: Are you sure want to confirm the order?

Cancel | Yes | No

Figure 4.5-7 Information Alert Message

STEP 5

Click on the  button to confirm ordered saved and to verify PN Order screen will be appeared as per Figure 4.5-7



MEDICATION ORDER

Select Registered Patient: All | HKLM00213497 | Dispensing Location: Farmasi Bekalan Wad - Rx Filling | New Patient X

Mykad: [Redacted] | Age: 39 Years 08 Months 11 Days | Gender: Male | MRN: HKLM00213497

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 172 cm | Weight: 83 kg | BMI/BSA: 28.1 / 1.99 m² | Update (Last Updated:) | Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT RECORD

Original Prescriber Name: YEOH CHEN WYE | Original Prescription Serial Number: 455

PN ORDER (6) (7)

PRESCRIPTION | Preview Prescription | PROCEED TO PREPARATION | Verify

Drug	Volume	Order Qty	Order Details	Remarks	Status
PN Compounded Adult	3160 ml	1 Bag	Details	Remarks	ORDERED

Figure 4.5-8 Prescription

STEP 6

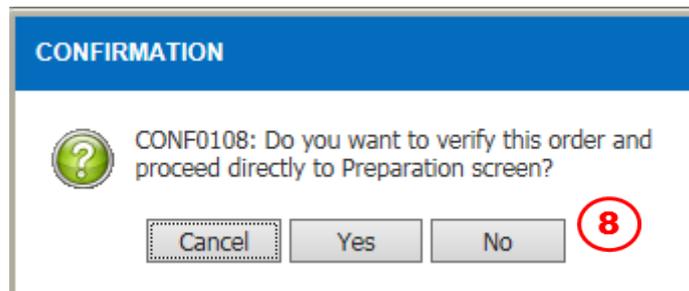
Check the **PROCEED TO PREPARATION** check box

Note

PROCEED TO PREPARATION button function will allow user to go to directly open preparation screen for each patient record.

STEP 7

Click on the **Verify** button to verify the order and alert message will be displayed as per Figure 4.5-8



CONFIRMATION

CONF0108: Do you want to verify this order and proceed directly to Preparation screen?

Cancel Yes No (8)

Figure 4.5-9 Information Alert Message

STEP 8

Click on the **Yes** button to confirm the verification



PN PREPARATION

Prescription X

Mykad: [Redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Room No/Bed No: Rx No: FBWFII0000461922 Order By: NUR AZIMAH MOHD RHAZI Transcribed By: NUR AZIMAH MOHD RHAZI Original Prescription Serial No: 455

PHARMACY ORDER

Prepared Date/Time: 09/01/2019 02:53 PM

PRESCRIPTION PROCEED TO DISPENSING Prepare Worksheet Label Outsource

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
PN Compounded Adult	3160 ml	1 bag	Details	1 bag	1 bag	Details 9	Remarks	0 bag	VERIFIED

Figure 4.5-10 Pharmacy Order

STEP 9

Click on the **Prepare Worksheet** **Details** button to prepare worksheet as per Figure 4.5-10

PREPARE WORKSHEET Intervention Auto Allocation X

DETAIL

TPN volume: 2400 ml Energy required: 0 kcal Product category: 3 in 1 2 in 1

Macronutrient: Glucose 0 g Lipid 0 g Protein 0 g Electrolytes: Sodium(Natrium),Na+ 0 mmol Potassium(Kalium),K+ 0 mmol Vitamin Vitamin Solution 0 ml Water soluble 0 ml Fat soluble 0 ml Calcium,Ca2+ 0 mmol Magnesium,Mg+ 0 mmol Trace elements 0 ml Acetate 0 mmol L-Glutamin 0 ml Phosphate,(PO4)2- 0 mmol

Item selected	Volume (ml)	Order Quantity	Allocated Quantity	Calorie (kcal)	Osmolarity (mOsmol)	Content										
						Lipid (g)	Glucose (g)	Protein (g)	Acetate (mmol)	Phosphate (mmol)	Sodium (mmol)	Potassium (mmol)	Calcium (mmol)	Magnesium (mmol)	Chloride (mmol)	
Fat emulsion, Intralipid 20% 250ml IV Soln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dextrose 50% IV soln 500ml	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amino acid 6.53% (Vaminolact) 100ml IV Soln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potassium Dihydrogen Phosphate Injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sodium Chloride 3% 500mL IV soln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calcium Gluconate 10% Inj	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Magnesium Sulphate 50% Inj (49.3%/5mL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peditrace 10mL Inj	0	0	0	0	0	Trace Elements										
Solvit N 10 ml Inj	0	0	0	0	0	Vitamin Solutions										
	0	0	0	0	0	Water Soluble Vitamins										
	0	0	0	0	0	Fat Soluble Vitamins										
	0	0	0	0	0	L-Glutamin										
Sterile Water for Inj 500mL	0	0	0	0	0	Water For Injection										
Total Preparation	0			0	0 mOsmol	0	0	0	0	0	0	0	0	0	0	0

Calculate

TOTAL CONTENT OF CALCIUM AND PHOSPHATE TO BE < 2MMOL/100ML	NPC:N Ratio	
TOTAL CONTENT OF MAGNESIUM AND CALCIUM TO BE < 2MMOL/100ML	Calcium + Phosphate=	0mmol/100ml
	Calcium + Magnesium=	0mmol/100ml

Figure 4.5-11 Prepare Worksheet

Note

- **Macronutrient, Vitamin field and Electrolytes field display the quantity to be added into the bag.**
- Click on the **Calculate** button to calculate PN content value.
- **Volume (ml), Order Quantity, Calorie (kcal), Osmolarity(mOsmol), Content and Total Preparation will be automatically calculated and displayed by system.**



PREPARE WORKSHEET

Intervention Auto Allocation

DETAIL

TPN volume: 2400 ml Energy required: 0 kcal Product category: 3 in 1 2 in 1

Macronutrient: Glucose 0 g Vitamin: Vitamin Solution 0 ml Trace elements: 0 ml
Lipid 0 g Water soluble: 0 ml Acetate: 0 mmol
Protein 0 g Fat soluble: 0 ml L-Glutamin: 0 ml

Electrolytes: Sodium (Natrium), Na+ 90 mmol Calcium, Ca2+ 6.75 mmol Phosphate, (PO4)2- 22.5 mmol
Potassium (Kalium), K+ 45 mmol Magnesium, Mg+ 6.75 mmol

Item selected	Volume (ml)	Order Quantity	Allocated Quantity	Calorie (kcal)	Osmolarity (mOsmol)	Content											
						Lipid (g)	Glucose (g)	Protein (g)	Acetate (mmol)	Phosphate (mmol)	Sodium (mmol)	Potassium (mmol)	Calcium (mmol)	Magnesium (mmol)	Chloride (mmol)		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potassium Dihydrogen Phosphate Injection	22.5	3 amp	3 amp	0	35.84	0	0	0	0	22.5	0	22.5	0	0	0	0	0
Sodium Chloride 3% 500mL IV soln	176.47	1 bott	1 bott	0	181.76	0	0	0	0	0	90	0	0	0	0	0	90
Potassium Chloride 1g/10ml Inj	16.79	2 amp	2 amp	0	45.38	0	0	0	0	0	0	22.5	0	0	0	0	22.5
Calcium Gluconate 10% Inj	30.68	4 amp	4 amp	0	20.52	0	0	0	0	0	0	0	6.75	0	0	0	0
Magnesium Sulphate 50% Inj (49.3%/5mL)	3.38	1 amp	1 amp	0	13.52	0	0	0	0	0	0	0	0	6.75	0	0	0
	0	0	0	0	0	Trace Elements											
	0	0	0	0	0	Vitamin Solutions											
	0	0	0	0	0	Water Soluble Vitamins											
	0	0	0	0	0	Fat Soluble Vitamins											
	0	0	0	0	0	L-Glutamin											
Sterile Water for Inj 500mL	2150.18	5 bott	5 bott	0	0	Water For Injection											
Total Preparation	2400				123.76	0	0	0	0	22.5	90	45	6.75	6.75	112.5	0	0

Calculate

TOTAL CONTENT OF CALCIUM AND PHOSPHATE TO BE < 2MMOL/100ML
Calcium + Phosphate= 1.22 mmol/100ml

TOTAL CONTENT OF MAGNESIUM AND CALCIUM TO BE < 2MMOL/100ML
Calcium + Magnesium= 0.56 mmol/100ml

NPC:N Ratio 0 : 1

Figure 4.5-12 Prepare Worksheet

Note

- Check on the Auto Allocation checkbox.
- Click on the button to save record.
- **Allocated Quantity** will be automatically calculated and displayed by system after click on the save button as per Figure 4.5-12.

PN PREPARATION

Mykad: [redacted] Age: 39 Years 08 Months 11 Days Gender: Male M/RN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: Rx No: FBWF00000461922 Order By: Transcribed By:

Original Prescription Serial No: 455

PHARMACY ORDER

Prepared Date/Time: 09/01/2019 02:53 PM **10**

PROCEED TO DISPENSING

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
PN Compounded Adult	3160 ml	1 bag	Details	1 bag	1 bag	Details	Remarks	0 bag	VERIFIED

Figure 4.5-13 PN Preparation

STEP 10

Click on the button to print Worksheet

PARENTERAL NUTRITION WORKSHEET
MINISTRY OF HEALTH
HOSPITAL KUALA LUMPUR

Patient Name : ██████████ Worksheet : A001-270318
 MRN : HKL00000015 Prepared Date/Time : 27/03/2018 12:16 PM
 Ward/Bed No : Ward SW26 (Perubatan Kelas 1) Prescription # : SW280000317225
 Age : 51 Years 07 Months 23 Days
 Gender : Male
 Body Weight : 75 kg

DRUG NAME	VOLUME (ml)	QUANTITY	BATCH NO	COMPONENT DETAIL (PER DAY)
Smof Kabiven Central 1100kcal, 1.0L	986	1 bag	10KG7867	-
Potassium Chloride 1g/10ml Injection	23.13	3 ampoule	HAF60176 1	31 mmol
Trace Element - Paediatric (Peditrace) 10mL Inj	3	1 ampoule	12KKL99	3 ml
Vitamin B and C (Soluvit N) in 10 ml WFI	5	1 vial	80IK537	5 ml
TPN Volume Bag	1017.13	1 Bag		

Worksheet Generated By : ██████████ Date : 27/03/2018
 Worksheet and Label Checked By : Supervised By :
 Bag Prepared By :
 Final Product Checked By :

Figure 4.5-14 Sample PN Worksheet

Note

Sample of PN Worksheet as per Figure 4.5-14.

Edit Label

- Click on the  button to edit label and **PN Edit Label** window will display as per Figure 4.5-16.
- Select the **Select for print** radio button to print label.
- User is allowed to edit **Infusion Over**, **Date Prepared** and **Shelf Life** field.
- **Expiry Date** will be automatically displayed after enter the **Shelf Life** field.

Drug Name, **Total Volume**, **Infusion Rate** and **Batch No** will be automatically displayed by system.

PN EDIT LABEL

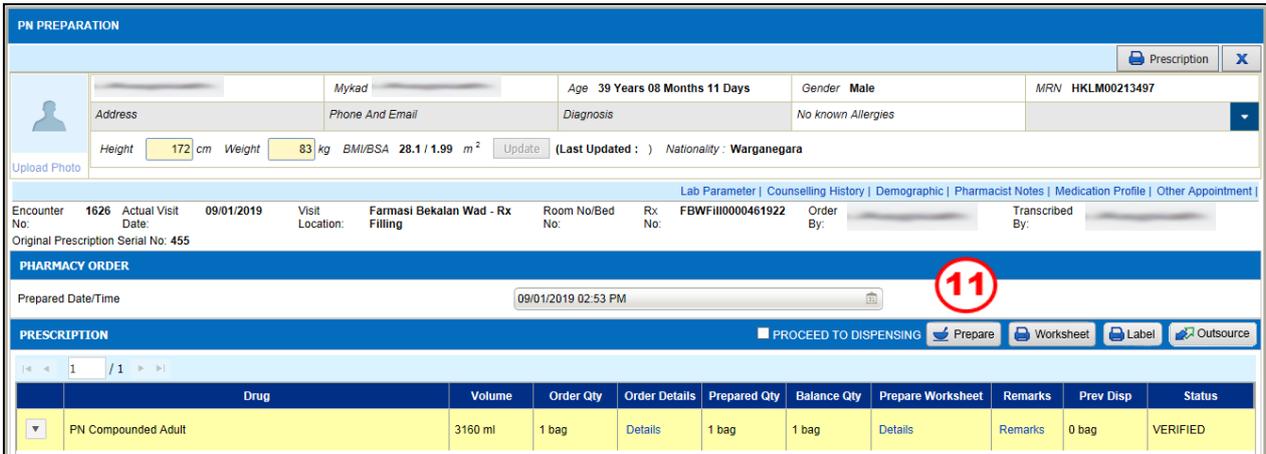
Select for print

Drug Name	PN Compounded Adult	
Total Volume	2400 ml	
Infusion Over		24 Hour(s)
Infusion Rate		mL/Hour
Prepared Date/Time	19/03/2015 2:24 PM	Shelf Life * 24 Hours
Expiry Date/Time	20/03/2015 2:24 PM	
Batch / Worksheet No	A047-190315	

Figure 4.5-15 PN Edit Label

HOSPITAL KULIM			
Smof Kabiven Central 1600kcal, 1.5L with Additive			
NAME : ██████████			
AGE : 31 Years 10 Months 20 Days			
MRN : HKLM00198330		WARD/BED NO: Intensive Care Unit (ICU)	
Product Volume		1481 ml/bag	
Ordered Volume		1481 ml/bag	
Content	/ kg	/ bag	
Protein (g)	0.94	75	
Dextrose (g)	2.34	187	
Lipid (g)	0.7	56	
Sodium (mmol)	0.75	60	
Potassium (mmol)	0.56	45	
Calcium (mmol)	0.05	3.8	
Magnesium (mmol)	0.19	15.5	
Phosphate (mmol)	0.24	19	
Chloride (mmol)	0.65	52	
Acetate (mmol)	1.96	157	
Trace (ml)	0	0	
Vitamins (ml)	0	0	
Calories (kcal)	20	1600	
Osmolarity (mOsm/l)	18.85	1508.37	
L-Glutamin (ml)	0	0	
Date and Time of Administration :			
Infusion Rate	61.71 ml/Hrs		
Worksheet ID A001-100719	Expiry Date 11/07/2019	Price : RM	
Do not use if any visible solid particles, growth or precipitation appears			
Store in refrigerator (2-8 °C). Protect from light (Once open use within 24 Hours) Ensure PN Solution is at room temperature before infusion			
TO BE INFUSED : CENTRAL LINE			

Figure 4.5-16 Sample PN Label



PN PREPARATION

Mykad: [Redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: [Redacted] Rx No: FBWFH0000461922 Order By: [Redacted] Transcribed By: [Redacted]

Original Prescription Serial No: 455

PHARMACY ORDER

Prepared Date/Time: 09/01/2019 02:53 PM

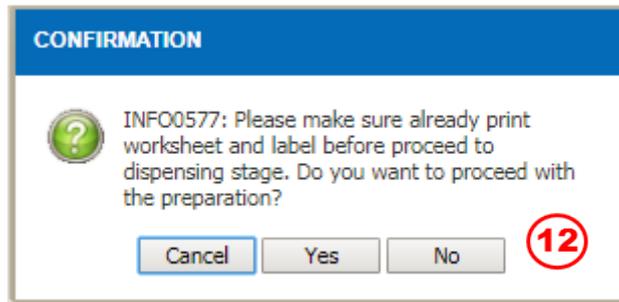
PRESCRIPTION PROCEED TO DISPENSING

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
PN Compounded Adult	3160 ml	1 bag	Details	1 bag	1 bag	Details	Remarks	0 bag	VERIFIED

Figure 4.5-17 PN Preparation

STEP 11

Click on the  button to prepare PN order

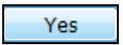


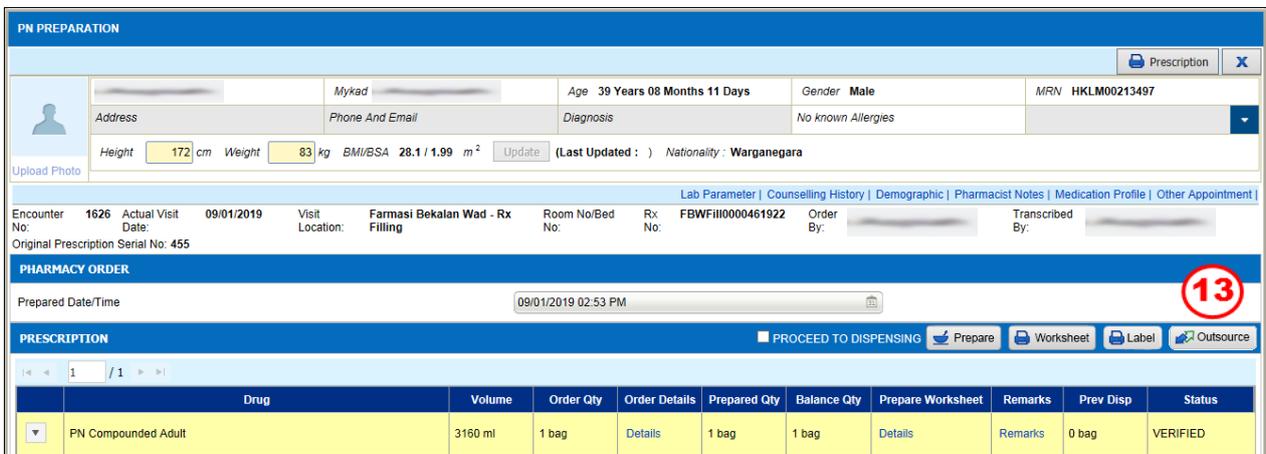
CONFIRMATION

INFO0577: Please make sure already print worksheet and label before proceed to dispensing stage. Do you want to proceed with the preparation?

Figure 4.5-18 Confirmation Alert Message

STEP 12

Click on the  button to confirm prepare order



PN PREPARATION

Mykad: [Redacted] Age: 39 Years 08 Months 11 Days Gender: Male MRN: HKLM00213497

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

Height: 172 cm Weight: 83 kg BMI/BSA: 28.1 / 1.99 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 1626 Actual Visit Date: 09/01/2019 Visit Location: Farmasi Bekalan Wad - Rx Filling Room No/Bed No: [Redacted] Rx No: FBWFH0000461922 Order By: [Redacted] Transcribed By: [Redacted]

Original Prescription Serial No: 455

PHARMACY ORDER

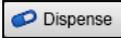
Prepared Date/Time: 09/01/2019 02:53 PM

PRESCRIPTION PROCEED TO DISPENSING

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
PN Compounded Adult	3160 ml	1 bag	Details	1 bag	1 bag	Details	Remarks	0 bag	VERIFIED

Figure 4.5-19 PN Dispensing

STEP 13

Click on the  button and alert message will be displayed as per Figure 4.5-19

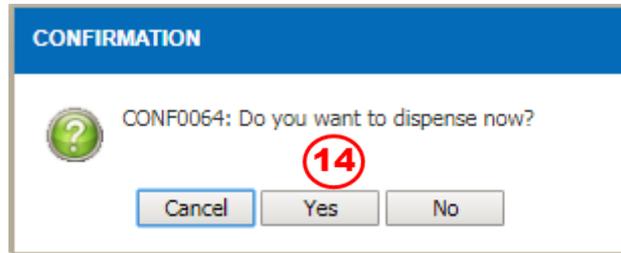
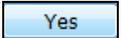


Figure 4.5-20 Confirmation Alert Message

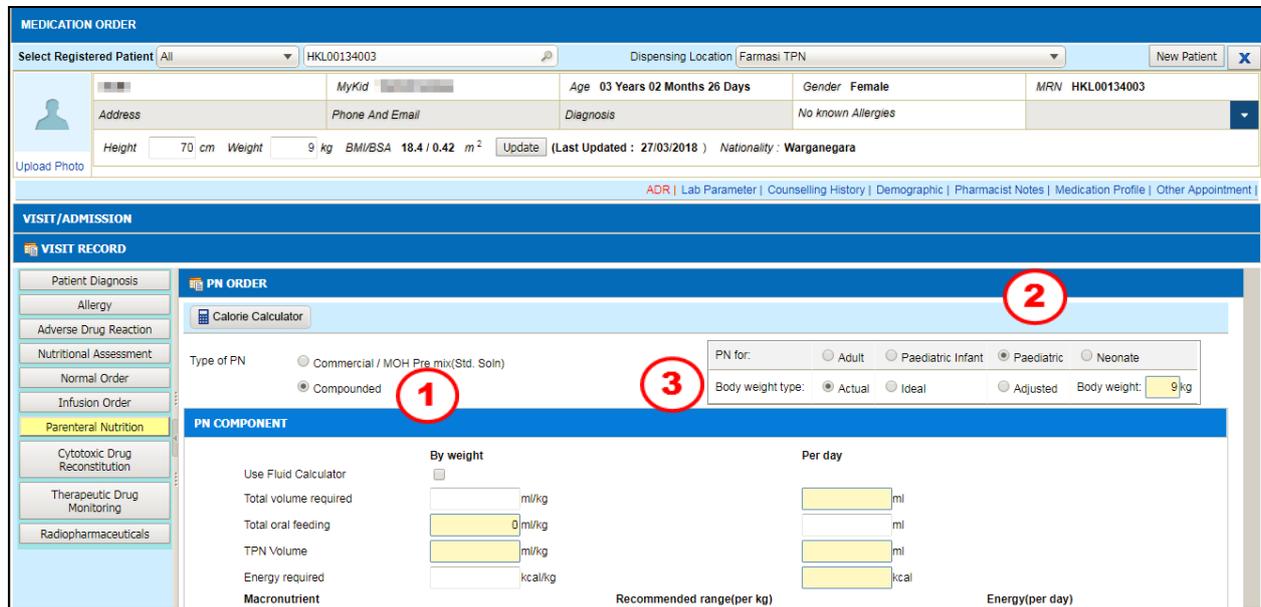
STEP 14

Click on the  button to confirm prepare order

Note

- User can **Hold/Resume** Order and **Release/Discard** order at dispensing activity.
- When release batch, drug and PN bag quantity will be returned back to inventory. When discard batch, drug and PN bag quantity will be deducted from inventory.
- Once drug already released or discarded, drug will be displayed back in Preparation screen for re-allocation of new batch qty.

4.6 Compounded (Paediatric)



MEDICATION ORDER

Select Registered Patient: All | HKL00134003 | Dispensing Location: Farmasi TPN | New Patient: X

MyKid: [Redacted] | Age: 03 Years 02 Months 26 Days | Gender: Female | MRN: HKL00134003

Address: [Redacted] | Phone And Email: [Redacted] | Diagnosis: [Redacted] | No known Allergies

Height: 70 cm | Weight: 9 kg | BMI/BSA: 18.4 / 0.42 m² | Update (Last Updated: 27/03/2018) | Nationality: Warganegara

ADR | Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT/ADMISSION

VISIT RECORD

Patient Diagnosis: [Redacted] | Allergy: [Redacted] | Adverse Drug Reaction: [Redacted] | Nutritional Assessment: [Redacted] | Normal Order: [Redacted] | Infusion Order: [Redacted] | **Parenteral Nutrition** | Cytotoxic Drug Reconstitution: [Redacted] | Therapeutic Drug Monitoring: [Redacted] | Radiopharmaceuticals: [Redacted]

PN ORDER

Calorie Calculator

Type of PN: Commercial / MOH Pre mix(Std. Soln) | **Compounded** (1)

PN for: Adult | Paediatric Infant | **Paediatric** (2) | Neonate

Body weight type: **Actual** (3) | Ideal | Adjusted | Body weight: 9 kg

PN COMPONENT

	By weight	Per day
Use Fluid Calculator	<input type="checkbox"/>	
Total volume required	<input type="text"/> ml/kg	<input type="text"/> ml
Total oral feeding	<input type="text"/> 0 ml/kg	<input type="text"/> ml
TPN Volume	<input type="text"/> ml/kg	<input type="text"/> ml
Energy required	<input type="text"/> kcal/kg	<input type="text"/> kcal
Macronutrient	Recommended range(per kg)	Energy(per day)

Figure 4.6-1 Medication Order

PN Compounded (Paediatric) allow user to order Parenteral Nutrition for patient between 3 years old to 12 years old.

STEP 1

Select on **Compounded** radio button for 'Type of PN'

STEP 2

Select on **Paediatric** radio button for 'PN for'

STEP 3

Select on the 'Body weight type' radio button to use for calculation either as:

- Actual
- Ideal
- Adjusted

PN COMPONENT							
By weight		Per day		Energy(per day)			
Use Fluid Calculator	<input type="checkbox"/>						
Total volume required	260ml/kg		5200ml				
Total oral feeding	0ml/kg						
TPN Volume	260ml/kg		5200ml				
Energy required	kcal/kg		0kcal				
Macronutrient		Recommended range(per kg)					
Carbohydrate	g/kg	3.00 - 10.50g/kg	0g		0kcal		
Lipid	1g/kg	1.00 - 2.00g/kg	20g		180kcal		
Protein	1g/kg	1.00 - 3.00g/kg	20g		80kcal		
L-Glutamin	0ml/kg	0.00 - 0.00ml/kg			0kcal		
Carbohydrate:Lipid(kcal)	0 : 100	Nitrogen Content	4g	NPC:NRatio	45 : 1	Total	260kcal
Electrolytes							
Sodium(Natrium),Na+	1mmol/kg	1.00 - 3.00mmol/kg	20mmol				
Potassium(Kalium),K+	2mmol/kg	1.00 - 3.00mmol/kg	40mmol				
Calcium,Ca2+	1mmol/kg	0.50 - 1.25mmol/kg	20mmol				
Magnesium,Mg+	0.15mmol/kg	0.15 - 0.25mmol/kg	3mmol				
Phosphate,(PO4)2-	mmol/kg	0.50 - 1.00mmol/kg	0mmol				
Chloride,Cl+	mmol/kg	2.00 - 5.00mmol/kg	0mmol				
Acetate(CH3COO)	mmol/kg	0.00 - 0.00mmol/kg	0mmol				
Trace elements	ml/kg	0.00 - 15.00ml					
Vitamin							
<input type="radio"/> Single Vitamin		<input type="radio"/> Multi Vitamin					

Figure 4.6-2 Medication Order

Note

By default Body weight type show the **Actual** body weight of the patient. Value for **Body Weight (kg)** will be change base on selected **Body weight** type.

PN Component

- Enter value for **Total volume required per day (ml)**.
- Value **By Weight** will automatically calculate and display after enter the **Total volume required per day (ml)**.
- Enter value for **Energy required By Weight (kcal/kg)**.
- Value **Per day** will automatically calculate and display after enter the **Energy required By Weight (kcal/kg)**.

Macronutrient

- Enter value of the **Macronutrient** that applicable for the **PN Component** .
- All entered value must between the **Recommended Range (per kg)**. User can still proceed if value is not within the recommended range.
- All value **Per day** and **Energy(per day)** will automatically calculate and display.

L-Gutamin is an optional function. Value of **By weight** and **Energy(per day)** will automatically display.

- Value of **Carbohydrate:Lipid(kcal) Content, Nitrogen and NPC:Ratio** will automatically calculate and display.
- Value of **Carbohydrate:Lipid(kcal) Content, Nitrogen and NPC:Ratio** will automatically calculate and display.

Electrolytes

- Enter value of the **Electrolytes** that applicable for the PN Component.
- All entered value must between the **Recommended Range (per kg)**. User can still proceed if value is not within the recommended range.
- **Chloride ,Cl⁺** and **Acetate (CH₃COO)** is optional function.
- All value **Per day** will automatically calculate and display.
- Enter value of the **Trace elements Per day**.
- Value **By Weight** will automatically calculate and display after enter the **Trace elements Per day** value.

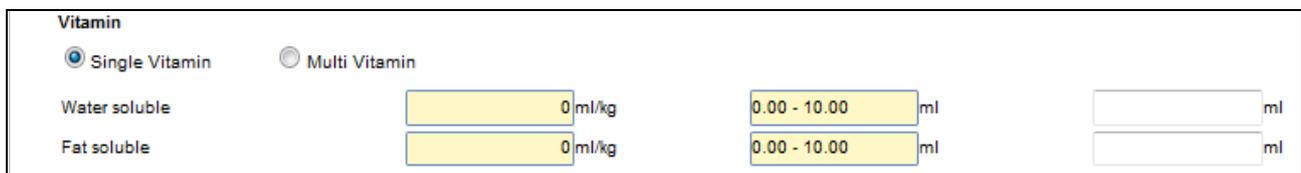


Figure 4.6-3 Single Vitamin

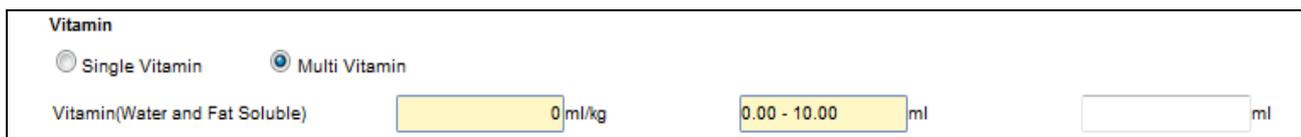


Figure 4.6-4 Multi Vitamin

Note

- Select either **Single Vitamin** or **Multivitamin** radio button.
- Vitamin have 2 types vitamin:
 - **Single Vitamin**
 - **Multi Vitamin**

If user select **Single Vitamin** radio button; **Water soluble** and **Fat soluble** field will automatically display by system as per Figure 4.6-3.

- If user select **Multi Vitamin** radio button; **Vitamin(Water and Fat Soluble)** field will automatically display by system as per Figure 4.6-4.

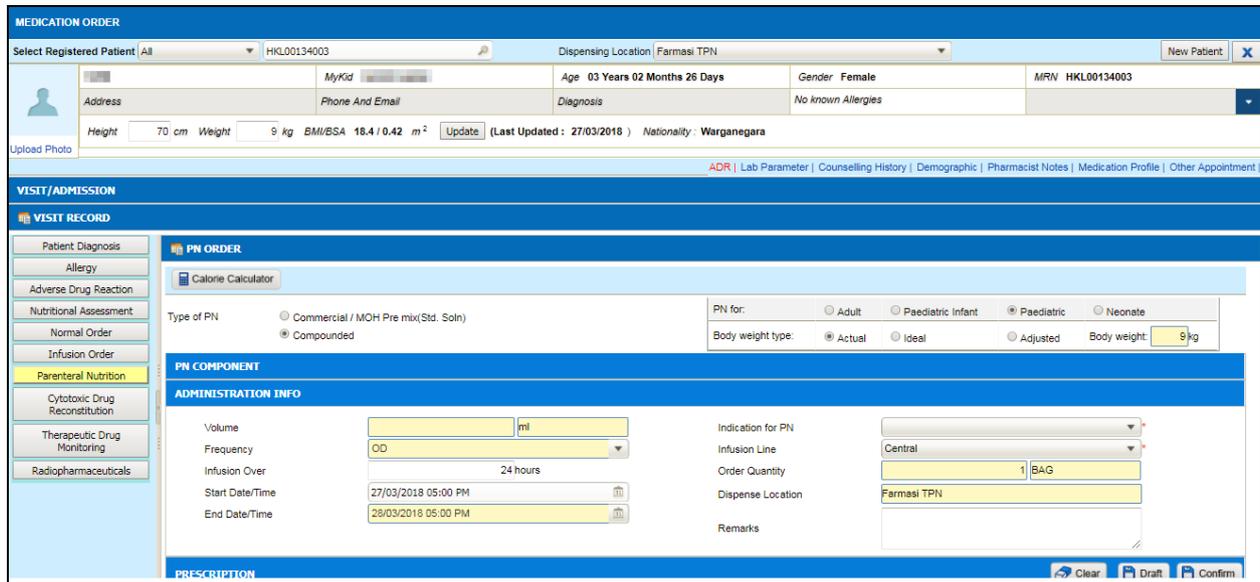
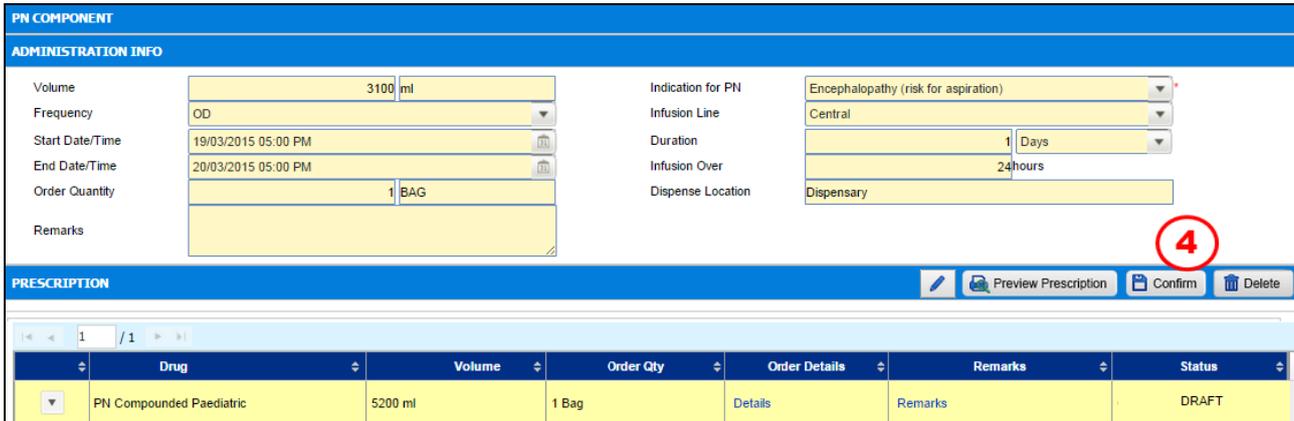


Figure 4.6-5 Administration Info

Note

- **Volume** will be automatically displayed by system and user is not allow to change at this field.
- **Infusion Line** will be automatically default to **Central** but user is allow to change at this field and select type of **Infusion Line** from the dropdown box.
- **Frequency** and **Duration** field will be automatically displayed and user is not allow to change this field.
- Default value for:
 - **Frequency** : OD (daily)
 - **Duration** : 1 day
- **Start Date/Time** will be automatically default to current date but still can be change by the user if applicable.
- **End Date/Time** will be displayed according to duration product given.
- **Infusion Over** will be automatically default to 24 hours but user is allow to change at this field.
- Select **Indication for PN** from the dropdown box.
- **Dispense Location** will be automatically default by system.
- **Enter Remarks if applicable**



Drug	Volume	Order Qty	Order Details	Remarks	Status
PN Compounded Paediatric	5200 ml	1 Bag	Details	Remarks	DRAFT

Figure 4.6-6 Prescription

STEP 4

Click on the  button to confirm record order and alert message will be appeared as per Figure 4.6-6

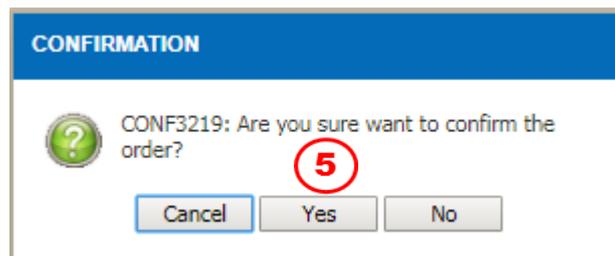
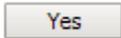
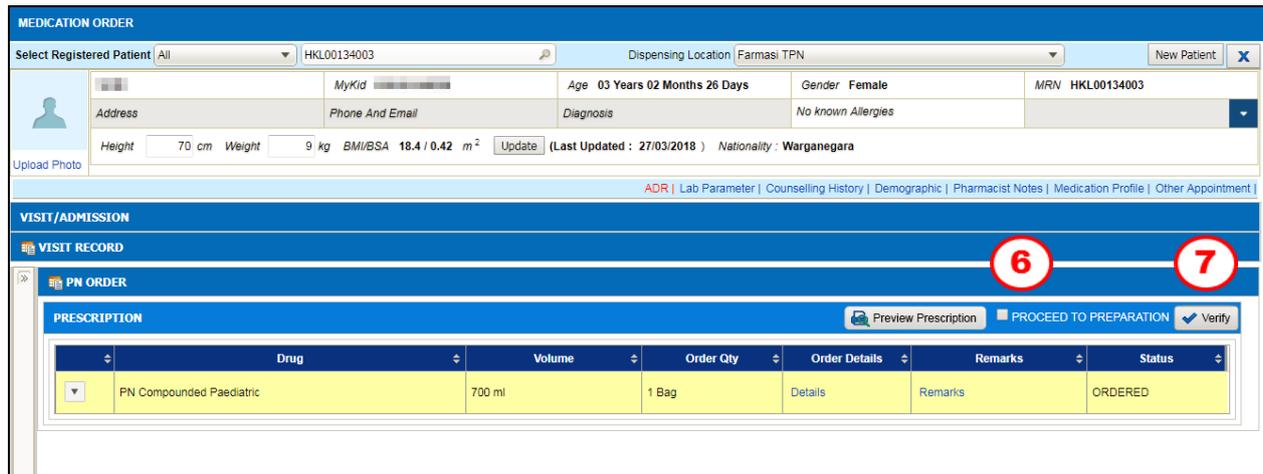


Figure 4.6-7 Prescription

STEP 5

Click on the  button to confirm order and to verify PN Order screen will be appeared as per Figure 4.6-7



MEDICATION ORDER

Select Registered Patient: All | HKL00134003 | Dispensing Location: Farmasi TPN | New Patient: X

MyKid: [REDACTED] | Age: 03 Years 02 Months 26 Days | Gender: Female | MRN: HKL00134003

Address: [REDACTED] | Phone And Email: [REDACTED] | Diagnosis: [REDACTED] | No known Allergies

Height: 70 cm | Weight: 9 kg | BMI/BSA: 18.4 / 0.42 m² | Update: (Last Updated: 27/03/2018) | Nationality: Warganegara

ADR | Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

VISIT/ADMISSION

VISIT RECORD

PN ORDER

PRESCRIPTION

Preview Prescription | PROCEED TO PREPARATION | Verify

Drug	Volume	Order Qty	Order Details	Remarks	Status
PN Compounded Paediatric	700 ml	1 Bag	Details	Remarks	ORDERED

Figure 4.6-8 Medication Order : Verify

STEP 6

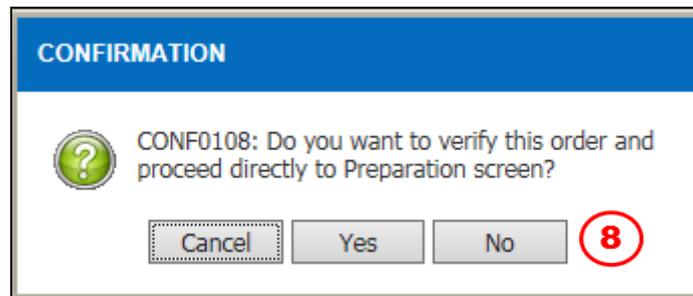
Check the **PROCEED TO PREPARATION** check box

Note

PROCEED TO PREPARATION Function allows user to go to Preparation screen for each patient record.

STEP 7

Click on the **Verify** button to verify the order and alert message will be displayed as per Figure 4.6-8



CONFIRMATION

CONF0108: Do you want to verify this order and proceed directly to Preparation screen?

Cancel Yes No

Figure 4.6-9 Confirmation Alert Message

STEP 8

Click on the **Yes** button to confirm the verification and proceed straight to preparation screen



PN PREPARATION

Prescription X

MyKid: [redacted] Age: 03 Years 02 Months 26 Days Gender: Female MRN: HKL00134003

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

Height: 70 cm Weight: 9 kg BMI/BSA: 18.4 / 0.42 m² Update (Last Updated:) Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

Encounter No: 0009 Actual Admission Date: 27/03/2018 Visit Location: Wad NW18B (Perubatan) Room No/Bed No: Rx No: NW18B0000317242 Order By: [redacted] Transcribed By: [redacted]

Original Prescription Serial No: 212424

PHARMACY ORDER

Prepared Date/Time: 27/03/2018 02:30 PM

PRESCRIPTION PROCEED TO DISPENSING

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
PN Compounded Paediatric	700 ml	1 bag	Details	1 bag	1 bag	Details	Remarks	0 bag	VERIFIED

Figure 4.6-10 PN Preparation

STEP 9

Click on the **Prepare Worksheet** Details button to prepare worksheet as per Figure 4.6-10

PREPARE WORKSHEET Intervention Auto Allocation X

DETAIL

TPN volume: 5200 ml Energy required: 260 kcal Product category: 3 in 1 2 in 1

Macronutrient: Glucose: 0 g Lipid: 20 g Protein: 20 g

Electrolytes: Sodium(Natrium),Na+: 20 mmol Potassium(Kalium),K+: 40 mmol Calcium,Ca2+: 20 mmol Magnesium,Mg+: 3 mmol

Vitamin Solution: [redacted] ml Water soluble: [redacted] ml Fat soluble: [redacted] ml

Trace elements: [redacted] ml Acetate: [redacted] mmol Overage volume: [redacted] ml Phosphate,(PO4)2-: [redacted] mmol

Lipid Syringe: Volume: 100 ml Volume Without Lipid: 5100 ml Lipid Overage Volume: 0 ml

Item selected	Volume (ml)	Order Quantity	Allocated Quantity	Calorie (kcal)	Osmolarity (mOsmol)	Lipid (g)	
[redacted]	0	0	0	0	0	0	Fat Soluble Vitamin
[redacted]	0	0	0	0	0	0	Water Soluble Vitamin
Fat emulsion, Intralipid 20% 250ml IV Soln	100	1 bott	0	180	35	20	Lipid
Total Preparation	100			180	350	20	

PN Bag (Without lipid)

Item selected	Volume (ml)	Order Quantity	Allocated Quantity	Calorie (kcal)	Osmolarity (mOsmol)	Glucose (g)	Protein (g)	Acetate (mmol)	Phosphate (mmol)	Sodium (mmol)	Potassium (mmol)	Calcium (mmol)	Magnesium (mmol)	Chloride (mmol)
Amino acid 6.53% (Vaminolact) 100ml IV Soln	306.28	4 bott	0	80	156.2	0	20	0	0	0	0	0	0	0
[redacted]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
[redacted]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sodium Chloride 3% 500mL IV soln	39.22	1 bott	0	0	40.4	0	0	0	0	20	0	0	0	20
Potassium Chloride 1g/10ml Inj	29.85	3 amp	0	0	80.66	0	0	0	0	0	40	0	0	40
Calcium Gluconate 10% Inj	90.91	10 amp	0	0	60.82	0	0	0	0	0	0	20	0	0
Magnesium Sulphate 50% Inj (49.3%/5mL)	1.5	1 amp	0	0	6	0	0	0	0	0	0	0	3	0
[redacted]	0	0	0	0	0	Trace Elements								
[redacted]	0	0	0	0	0	Water For Injection								
[redacted]	4632.24	10 bott	0	0	0	0	0	0	0	0	0	0	0	0
Total Preparation	5100			80	67.47	0	20	0	0	20	40	20	3	60

Figure 4.6-11 Prepare Worksheet

STEP 10

Select on the 3 in 1 2 in 1 radio button for product category

Note

Section A:

Macronutrient, Vitamin and Electrolytes will be automatically displayed by system based on prescription order.

Section B:

Lipid Syringe table

- Volume (ml), Order Quantity, Calorie (kcal), Osmolarity(mOsmol), Lipid and Total Preparation will be automatically calculated and displayed by system.
- Lipid Overage function provided.

STEP 11

Select the product for lipid preparation

STEP 12

Click on the button to calculate PN content value

Note

All column in Section B will be updated.

PN Bag (Without Lipid)table

Volume (ml), Order Quantity, Content and **Total Preparation** will be automatically calculated and displayed by system. **Overage** bag function provided.

STEP 13

Select the product for PN bag preparation

STEP 14

Click on the button to calculate PN content value

Note

Volume Calorie and **Osmolarity** will be calculated.

Section C:

Overage Volume

- Enter the excess amount for PN bag preparation.

Eg:

Ordered volume for PN bag = 5200ml.

Pharmacy to prepare = 5200ml.

Overage volume PN bag = 20ml.

- Click on the button on PN Bag table

Lipid Overage Volume

- Enter excess amount for Lipid Syringe preparation.

Click on the button on Lipid Syringe table.

Figure 4.6-12 Prepare Worksheet

STEP 15

Check on the Auto Allocation checkbox

STEP 16

Click on the button to save record

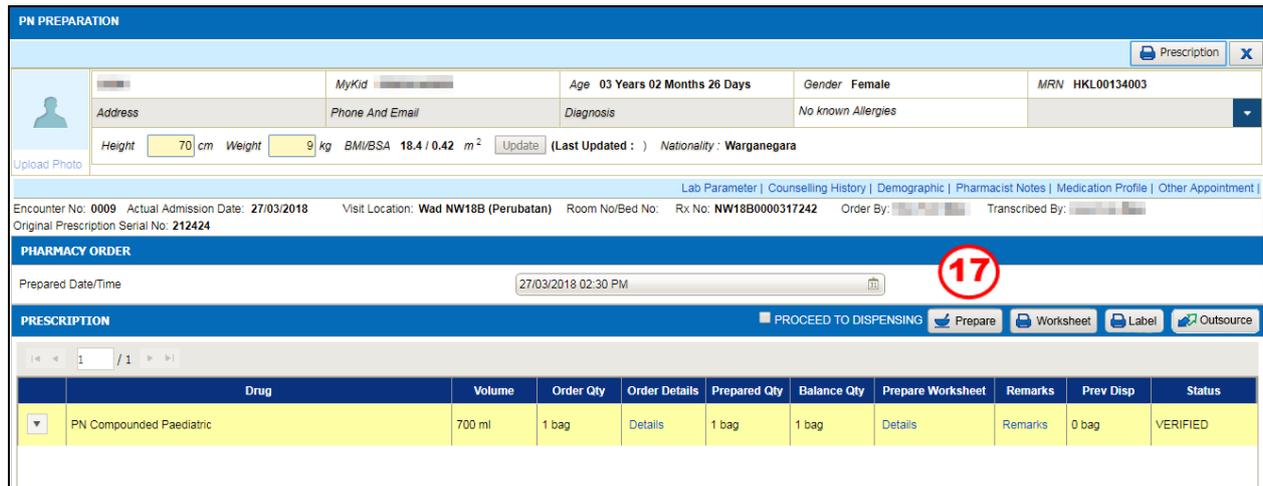
Item selected	Volume (ml)	Order Quantity	Allocated Quantity	Calorie (kcal)	Osmolarity (mOsmol)	Glucose (g)	Protein (g)	Acetate (mmol)	Phosphate (mmol)	Sodium (mmol)	Potassium (mmol)	Calcium (mmol)	Magnesium (mmol)	Chloride (mmol)
Fat emulsion, Intralipid 20% 250ml IV Soln	100	1 bott	0	180	35	0	0	0	0	0	0	0	0	0
Total Preparation	100		NA	180	350	0	0	0	0	0	0	0	0	0

Item selected	Volume (ml)	Order Quantity	Allocated Quantity	Calorie (kcal)	Osmolarity (mOsmol)	Glucose (g)	Protein (g)	Acetate (mmol)	Phosphate (mmol)	Sodium (mmol)	Potassium (mmol)	Calcium (mmol)	Magnesium (mmol)	Chloride (mmol)
Amino acid 6.53% (Vaminolact) 100ml IV Soln	306.28	4 bott	1 bott	80	156.2	0	20	0	0	0	0	0	0	0
Sodium Chloride 3% 500mL IV soln	39.22	1 bott	1 bott	0	40.4	0	0	0	0	20	0	0	0	20
Potassium Chloride 1g/10ml Inj	29.85	3 amp	0	0	80.68	0	0	0	0	0	40	0	0	40
Calcium Gluconate 10% Inj	90.91	10 amp	6 amp	0	60.82	0	0	0	0	0	0	20	0	0
Magnesium Sulphate 50% Inj (49.3%/5mL)	1.5	1 amp	0	0	6	0	0	0	0	0	0	0	3	0
Sterile Water for Inj 500mL	4632.24	10 bott	0	0	0	0	0	0	0	0	0	0	0	0
Total Preparation	5100			80	67.47	0	20	0	0	20	40	20	3	60

Figure 4.6-13 Prepare Worksheet

Note

- **Allocated Quantity** column will be automatically calculated and displayed by system as per Figure 4.6-13.
- Click on the and button to generate worksheet and label as in Compounded Adult



PN PREPARATION

Prescription X

MyKid: [redacted] Age: 03 Years 02 Months 26 Days Gender: Female MRN: HKL00134003

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

Height: 70 cm Weight: 9 kg BMI/BSA: 18.4 / 0.42 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 0009 Actual Admission Date: 27/03/2018 Visit Location: Wad NW18B (Perubatan) Room No/Bed No: Rx No: NW18B0000317242 Order By: [redacted] Transcribed By: [redacted]

Original Prescription Serial No: 212424

PHARMACY ORDER

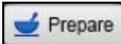
Prepared Date/Time: 27/03/2018 02:30 PM

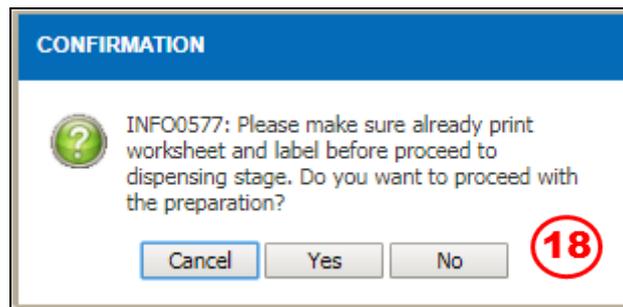
PRESCRIPTION PROCEED TO DISPENSING

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
PN Compounded Paediatric	700 ml	1 bag	Details	1 bag	1 bag	Details	Remarks	0 bag	VERIFIED

Figure 4.6-14 PN Preparation

STEP 17

Click on the  button to prepare PN order

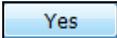


CONFIRMATION

INFO0577: Please make sure already print worksheet and label before proceed to dispensing stage. Do you want to proceed with the preparation?

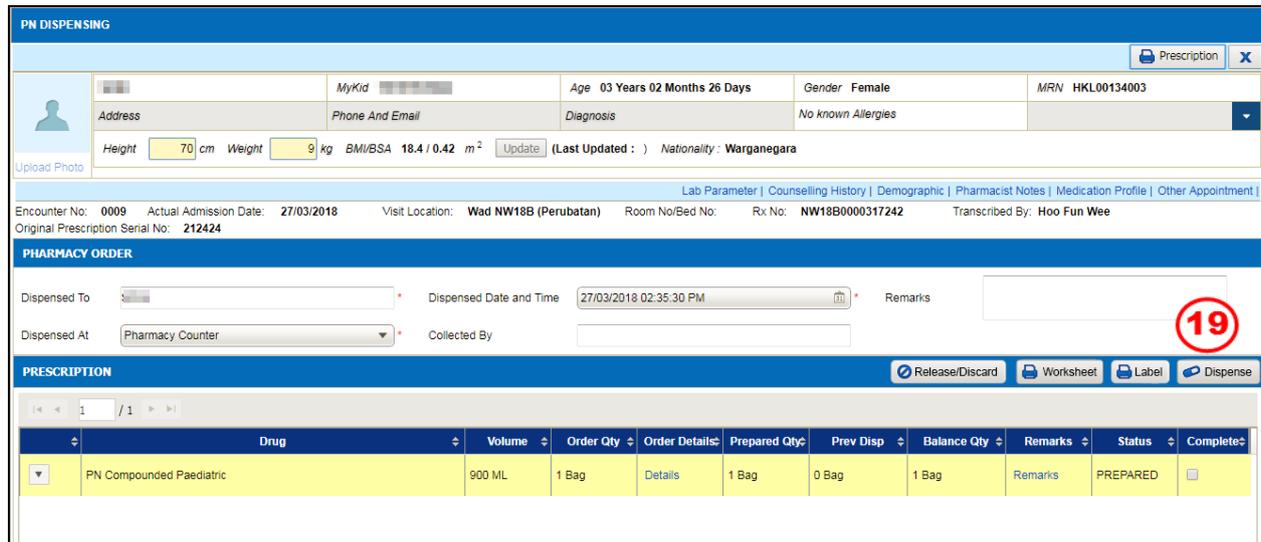
Figure 4.6-15 Confirmation Alert Message

STEP 18

Click on the  button to confirm prepare order

Note

Proceed to Dispensing function will allow user to go next stage screen for each patient record.



PN DISPENSING

MyKid: [Redacted] Age: 03 Years 02 Months 26 Days Gender: Female MRN: HKL00134003

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

Height: 70 cm Weight: 9 kg BMI/BSA: 18.4 / 0.42 m² Update (Last Updated:) Nationality: Warganegara

Encounter No: 0009 Actual Admission Date: 27/03/2018 Visit Location: Wad NW18B (Perubatan) Room No/Bed No: Rx No: NW18B0000317242 Transcribed By: Hoo Fun Wee

Original Prescription Serial No: 212424

PHARMACY ORDER

Dispensed To: [Redacted] Dispensed Date and Time: 27/03/2018 02:35:30 PM Remarks: [Redacted]

Dispensed At: Pharmacy Counter Collected By: [Redacted]

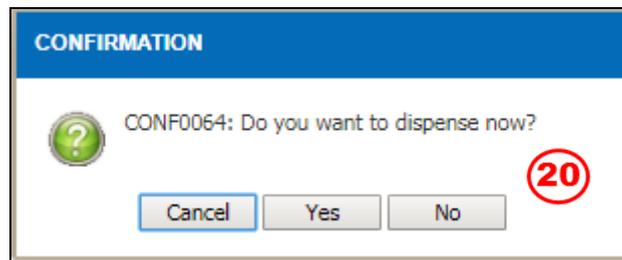
PRESCRIPTION Release/Discard Worksheet Label Dispense

Drug	Volume	Order Qty	Order Details	Prepared Qty	Prev Disp	Balance Qty	Remarks	Status	Complete
PN Compounded Paediatric	900 ML	1 Bag	Details	1 Bag	0 Bag	1 Bag	Remarks	PREPARED	<input type="checkbox"/>

Figure 4.6-16 PN Dispensing

STEP 19

Click on the  button and alert message will be displayed as per Figure 4.6-16



CONFIRMATION

CONF0064: Do you want to dispense now?

Cancel Yes No

Figure 4.6-17 Confirmation Alert Message

STEP 20

Click on the  button to confirm prepare order

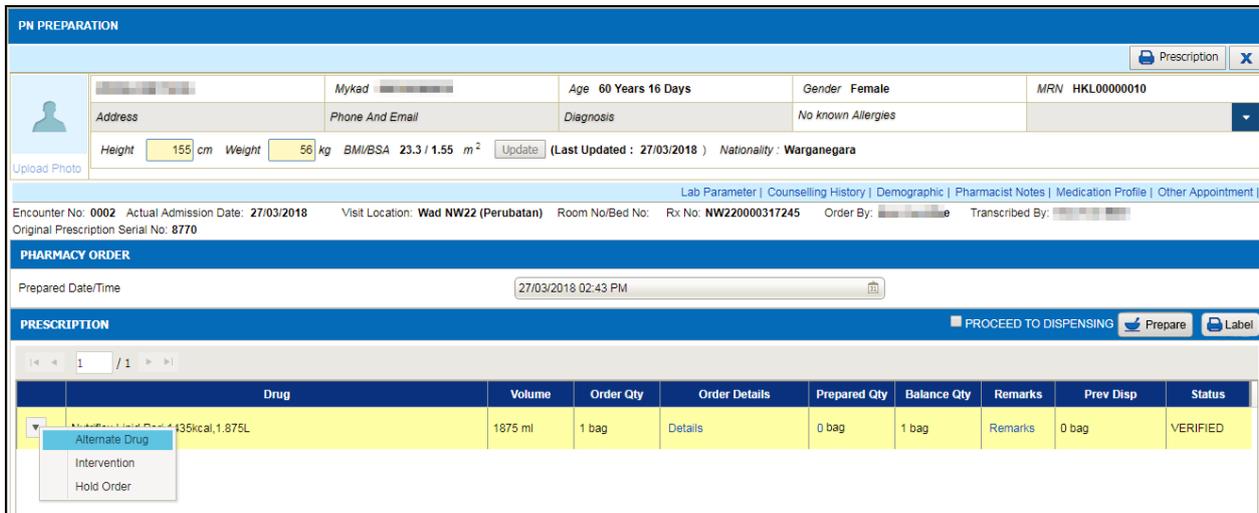
Note

- User only can do **Hold/Resume** Order at dispensing activity.
- When release batch, drug and PN bag quantity will be returned back to inventory. When discard batch, drug and PN bag quantity will be deducted from inventory.
- Once drug already released or discarded, drug will be displayed back in Preparation screen for re-allocation of new batch qty.
- PN Compounded (Paediatric Infant) allow user to order Parenteral Nutrition for patient between 31 days old to 2 years old.
- PN Compounded (Neonate) allow user to order Parenteral Nutrition for patient between 1 day old to 30 days old.
- If PN order is for paediatric, paediatric infant or neonate, product category will default to 2 in 1.

Pediatric Infant or Neonate

Please repeat section 4.6 from **STEP 1** until **STEP 23** for medication order, verify, preparation and dispensing process.

4.7 Alternate Drug



PN PREPARATION

Mykad: [REDACTED] Age: 60 Years 16 Days Gender: Female MRN: HKL0000010

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

Height: 155 cm Weight: 56 kg BMI/BSA: 23.3 / 1.55 m² (Last Updated: 27/03/2018) Nationality: Warganegara

Encounter No: 0002 Actual Admission Date: 27/03/2018 Visit Location: Wad NW22 (Perubatan) Room No/Bed No: [REDACTED] Rx No: NW220000317245 Order By: [REDACTED] Transcribed By: [REDACTED]

Original Prescription Serial No: 8770

PHARMACY ORDER

Prepared Date/Time: 27/03/2018 02:43 PM

PRESCRIPTION

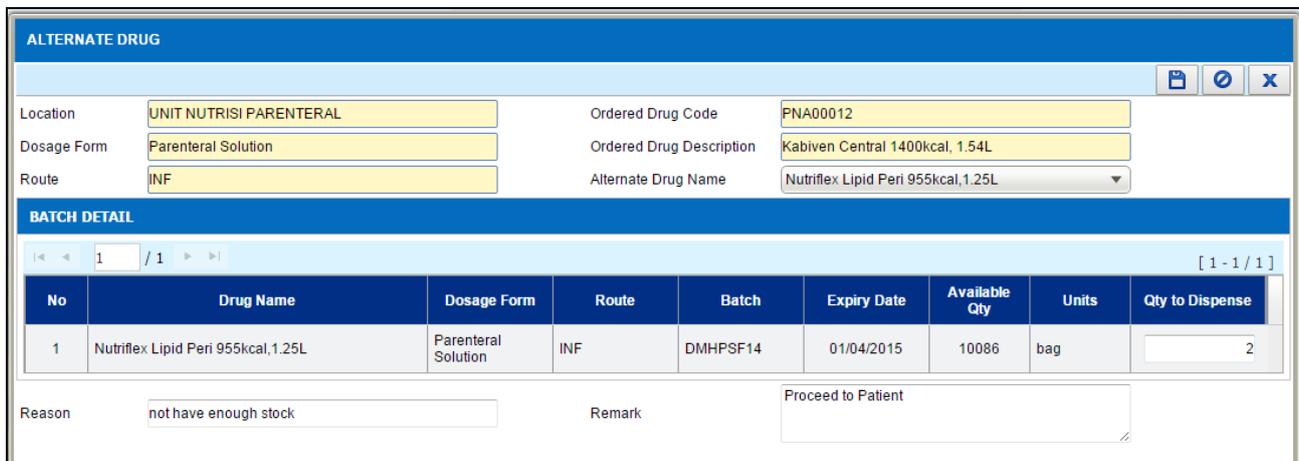
Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Remarks	Prev Disp	Status	
<input type="button" value="Alternate Drug"/> <ul style="list-style-type: none"> Intervention Hold Order 	135kcal, 1.875L	1875 ml	1 bag	Details	0 bag	1 bag	Remarks	0 bag	VERIFIED

Figure 4.7-1 PN Preparation

Note

Alternate Drug:

- Click on the button to select **Alternate Drug** as per Figure 4.7-1.
- Alternate Drug** function only can be used in Commercial preparation stage of the drug.
- Select the **Alternate Drug Name** from dropdown boxas per Figure 4.7-2.
- List of drug are from unit catalog list.
- Enter **Qty to Dispense** field as per Figure 4.7-2.
- Enter **Reason** field if applicable as per Figure 4.7-2.
- Enter **Remark** field if applicable as per Figure 4.7-2.
- Click on the button to save record and alert message will be appeared as per Figure 4.7-3.



ALTERNATE DRUG

Location: UNIT NUTRISI PARENTERAL Ordered Drug Code: PNA00012

Dosage Form: Parenteral Solution Ordered Drug Description: Kabiven Central 1400kcal, 1.54L

Route: INF Alternate Drug Name: Nutriflex Lipid Peri 955kcal, 1.25L

BATCH DETAIL

No	Drug Name	Dosage Form	Route	Batch	Expiry Date	Available Qty	Units	Qty to Dispense
1	Nutriflex Lipid Peri 955kcal, 1.25L	Parenteral Solution	INF	DMHPSF14	01/04/2015	10086	bag	2

Reason: not have enough stock Remark: Proceed to Patient

Figure 4.7-2 Alternate Drug

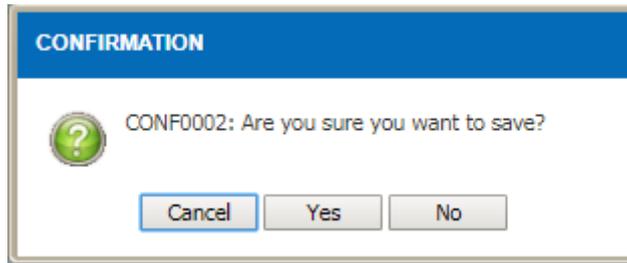
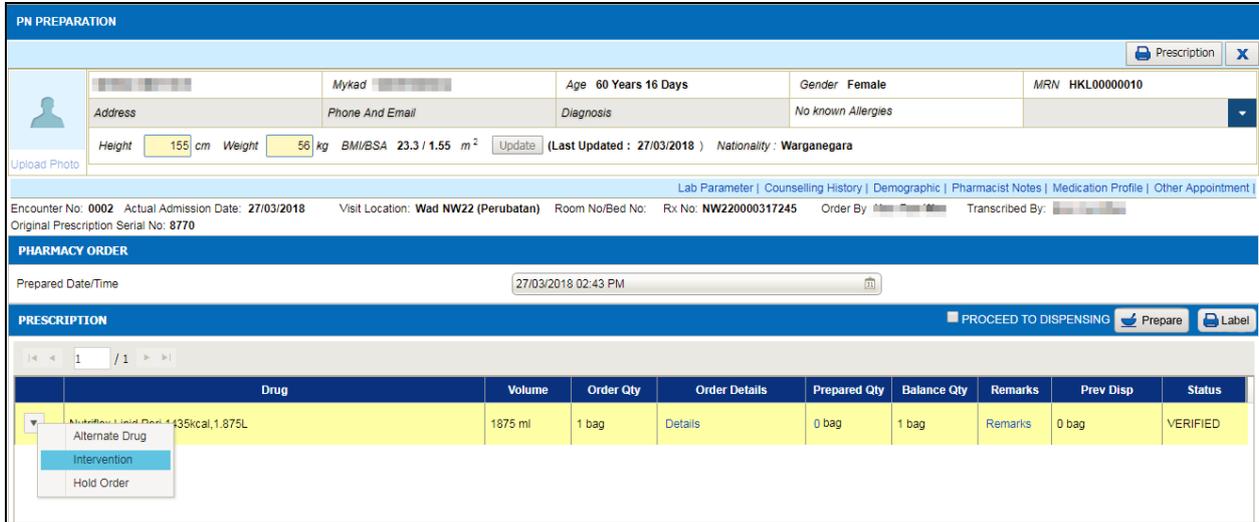


Figure 4.7-3 Confirmation Alert Message

Note

Click on the  button to confirm save record.

4.8 Intervention



PN PREPARATION

Prescription X

Mykad: [REDACTED] Age: 60 Years 16 Days Gender: Female MRN: HKL0000010

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

Height: 155 cm Weight: 56 kg BMI/BSA: 23.3 / 1.55 m² Update (Last Updated : 27/03/2018) Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment |

Encounter No: 0002 Actual Admission Date: 27/03/2018 Visit Location: Wad NW22 (Perubatan) Room No/Bed No: Rx No: NW220000317245 Order By: [REDACTED] Transcribed By: [REDACTED]

Original Prescription Serial No: 8770

PHARMACY ORDER

Prepared Date/Time: 27/03/2018 02:43 PM

PRESCRIPTION PROCEED TO DISPENSING Prepare Label

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Remarks	Prev Disp	Status
Multifac-Lipid-Dist-4435kcal,1.875L	1875 ml	1 bag	Details	0 bag	1 bag	Remarks	0 bag	VERIFIED

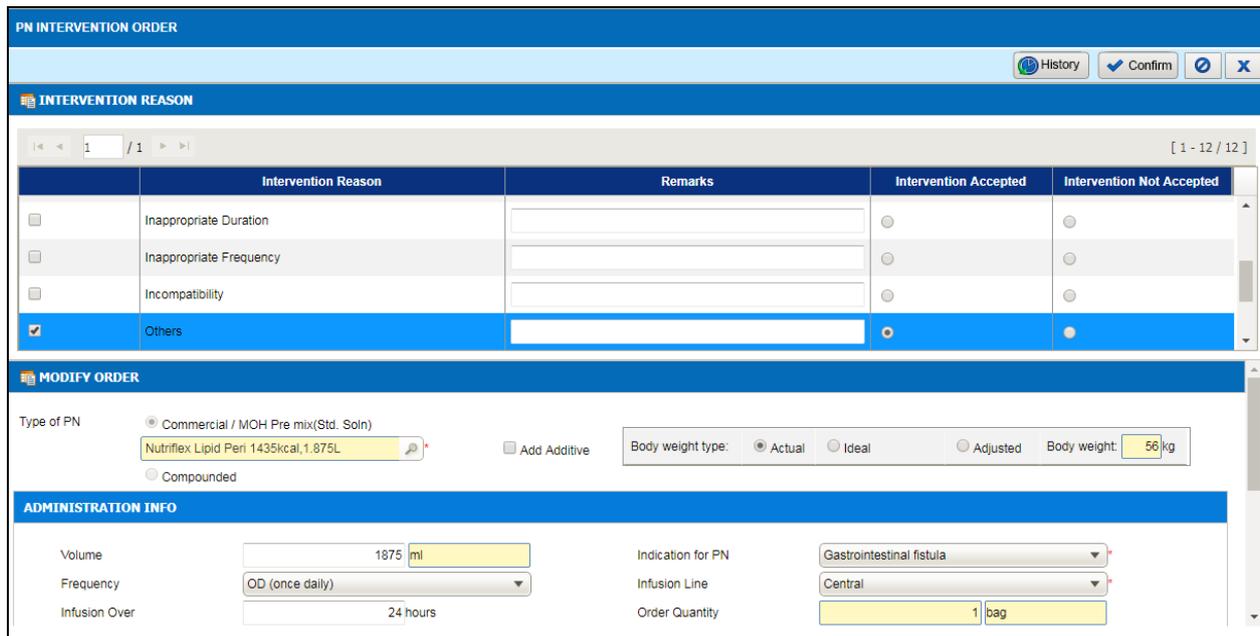
Intervention dropdown menu options: Intervention, Hold Order

Figure 4.8-1 PN Preparation

Note

Intervention:

- Click on the  button to select **Intervention** as per Figure 4.8-1 to modify drug details as per Figure 4.8-2.
- PN Intervention Order screen include three sections:
 - Pharmacy Remarks
 - Administration Information
 - Prescription



PN INTERVENTION ORDER

History Confirm Refresh X

INTERVENTION REASON

1 / 1 [1 - 12 / 12]

	Intervention Reason	Remarks	Intervention Accepted	Intervention Not Accepted
<input type="checkbox"/>	Inappropriate Duration		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Frequency		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Incompatibility		<input type="radio"/>	<input type="radio"/>
<input checked="" type="checkbox"/>	Others		<input checked="" type="radio"/>	<input type="radio"/>

MODIFY ORDER

Type of PN: Commercial / MOH Pre mix(Std. Soln)
 Compounded

Nutriflex Lipid Peri 1435kcal,1.875L Add Additive

Body weight type: Actual Ideal Adjusted Body weight: 56kg

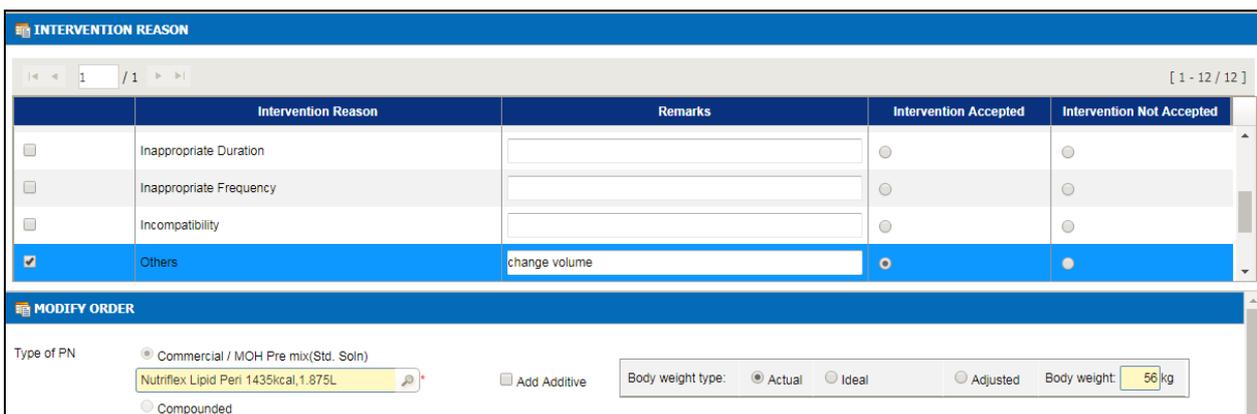
ADMINISTRATION INFO

Volume: 1875 ml Indication for PN: Gastrointestinal fistula
 Frequency: OD (once daily) Infusion Line: Central
 Infusion Over: 24 hours Order Quantity: 1 bag

Figure 4.8-2 PN Preparation Intervention

Note

- Check on the **Intervention Reason** checkbox as appropriate and enter **Remarks** field if applicable.
- Select **Intervention Accepted** radio button or **Intervention Not Accepted** radio button.
- **Administration Information** section user is allowed to modify **Volume, Frequency, Duration and Infusion Over** field.
- Click on the **Refresh Prescription** button to update back prescription details.



INTERVENTION REASON

1 / 1 [1 - 12 / 12]

	Intervention Reason	Remarks	Intervention Accepted	Intervention Not Accepted
<input type="checkbox"/>	Inappropriate Duration		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Frequency		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Incompatibility		<input type="radio"/>	<input type="radio"/>
<input checked="" type="checkbox"/>	Others	change volume	<input checked="" type="radio"/>	<input type="radio"/>

MODIFY ORDER

Type of PN: Commercial / MOH Pre mix(Std. Soln)
 Compounded

Nutriflex Lipid Peri 1435kcal,1.875L Add Additive

Body weight type: Actual Ideal Adjusted Body weight: 56kg

Figure 4.8-3 PN Intervention Order

Note

- Click on the **Confirm** button to save record as per Figure 4.8-3 and alert message will be displayed as per Figure 4.8-4. Click on the **Yes** button to save record.

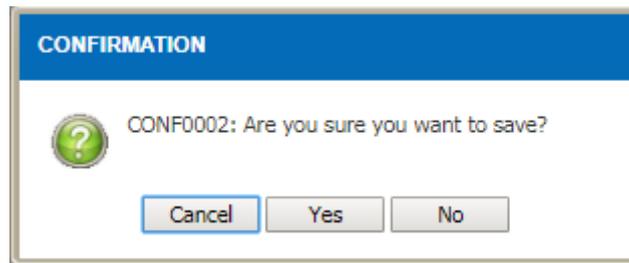


Figure 4.8-4 Confirmation Alert Message

Note

- Click on the  button to save record.
- Click on the  button to view history of Intervention reason history listing as per Figure 4.8-5.
- Click on the  button to close Intervention Reason History Listing screen.



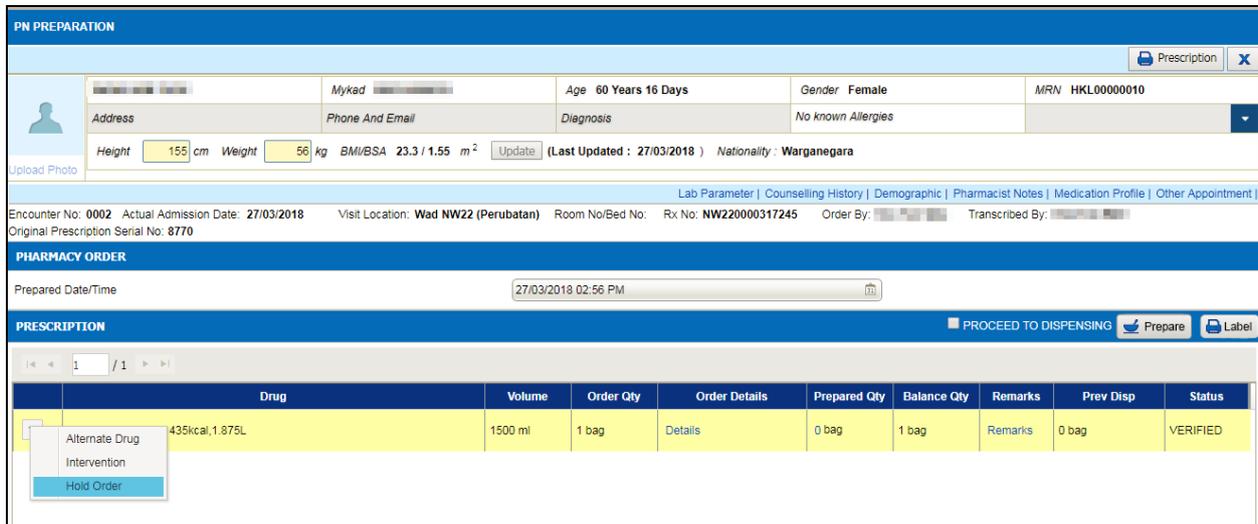
INTERVENTION REASON HISTORY LISTING

1 / 1 [1 - 1 / 1]

Date/Time	Intervention Reason	Remarks	Updated By
	Others	change volume	

Figure 4.8-5 Intervention Reason history

4.9 Hold/Resume PN Order



PN PREPARATION

Prescription X

Mykad: [REDACTED] Age: 60 Years 16 Days Gender: Female MRN: HKL0000010

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

Height: 155 cm Weight: 56 kg BMI/BSA: 23.3 / 1.55 m² Update (Last Updated: 27/03/2018) Nationality: Warganegara

Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment |

Encounter No: 0002 Actual Admission Date: 27/03/2018 Visit Location: Wad NW22 (Perubatan) Room No/Bed No: Rx No: NW220000317245 Order By: [REDACTED] Transcribed By: [REDACTED]

Original Prescription Serial No: 8770

PHARMACY ORDER

Prepared Date/Time: 27/03/2018 02:56 PM

PRESCRIPTION PROCEED TO DISPENSING Prepare Label

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Remarks	Prev Disp	Status
435kcal,1.875L	1500 ml	1 bag	Details	0 bag	1 bag	Remarks	0 bag	VERIFIED

Dropdown menu options: Alternate Drug, Intervention, Hold Order

Figure 4.9-1 PN Preparation

Note

Hold/Resume PN Order:

- Click on the  button to select **Hold Order** and **Hold Order** screen will be appeared as per Figure 4.9-1.
- Select the **Hold Reason** from dropdown box:
 - Authenticity
 - Contraindication
 - Drug Interaction
 - Inappropriate Dose
 - Inappropriate Drug
 - Inappropriate Duration
 - Inappropriate Frequency
 - Incompatibility
 - Intervention
 - Others
 - Polypharmacy
 - Suggest to Monitor Vital Signs/Lab Result
 - Wrong Patient
- **Other Reason** field will activate if user select hold reason as **Others**.

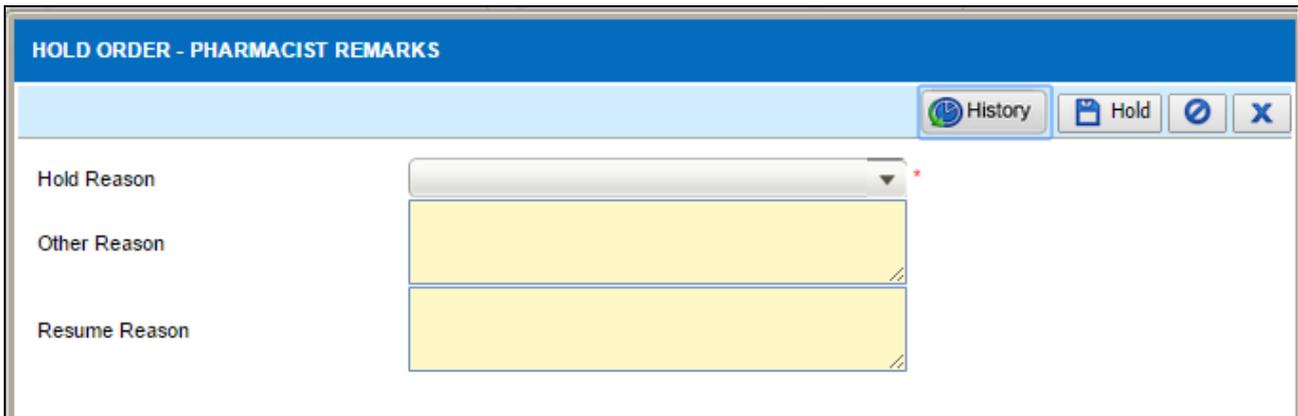


Figure 4.9-2 Hold Order-Pharmacy Remarks

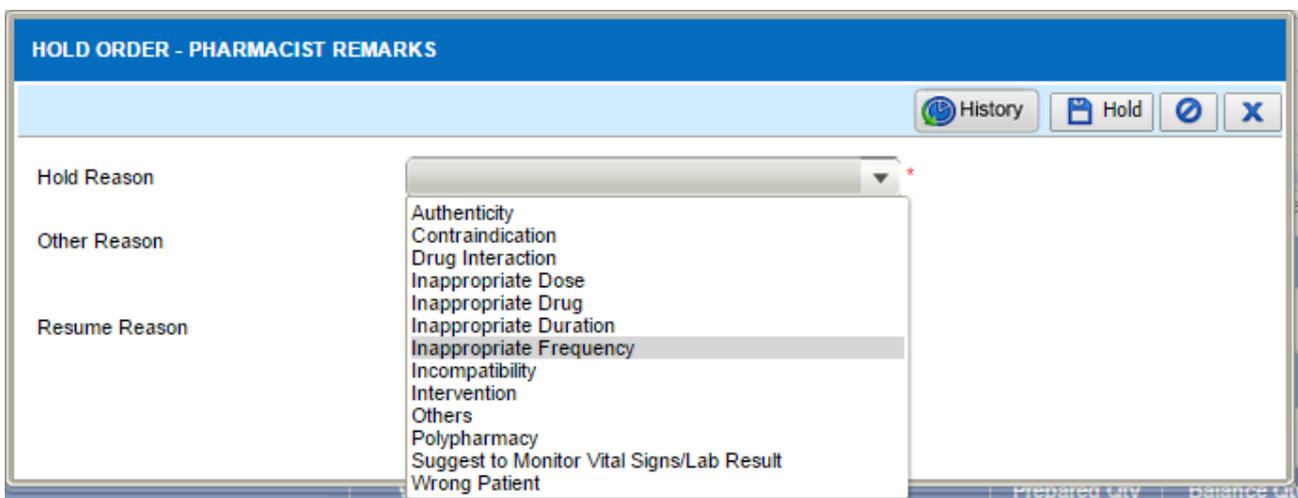


Figure 4.9-3 Hold Order-Pharmacy Remarks

Note

- Click on the  button to hold order.
- Click on the  button to confirm save record.

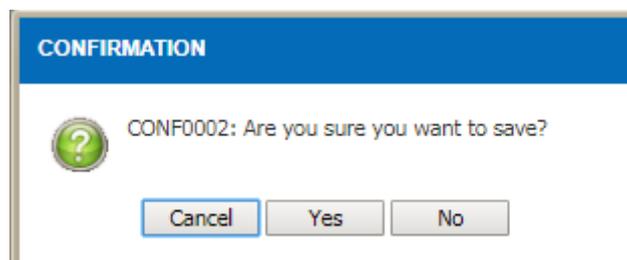
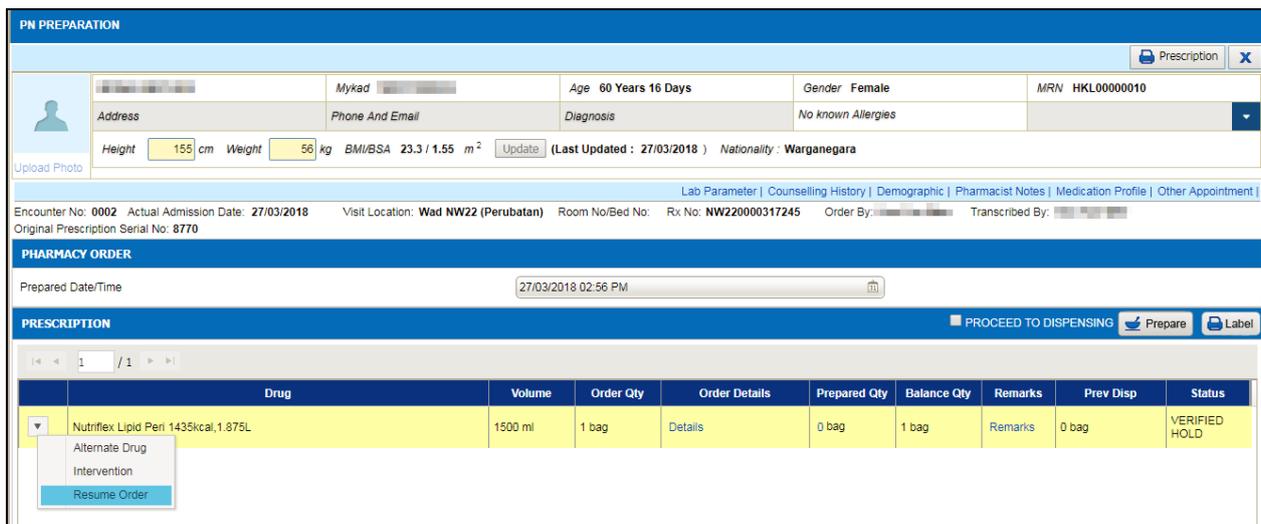


Figure 4.9-4 Confirmation Alert Message



PN PREPARATION

Prescription X

Mykad: [REDACTED] Age: 60 Years 16 Days Gender: Female MRN: HKL00000010

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

Height: 155 cm Weight: 56 kg BMI/BSA: 23.3 / 1.55 m² (Last Updated: 27/03/2018) Nationality: Warganegara

Encounter No: 0002 Actual Admission Date: 27/03/2018 Visit Location: Wad NW22 (Perubatan) Room No/Bed No: [REDACTED] Rx No: NW220000317245 Order By: [REDACTED] Transcribed By: [REDACTED]

PHARMACY ORDER

Prepared Date/Time: 27/03/2018 02:56 PM

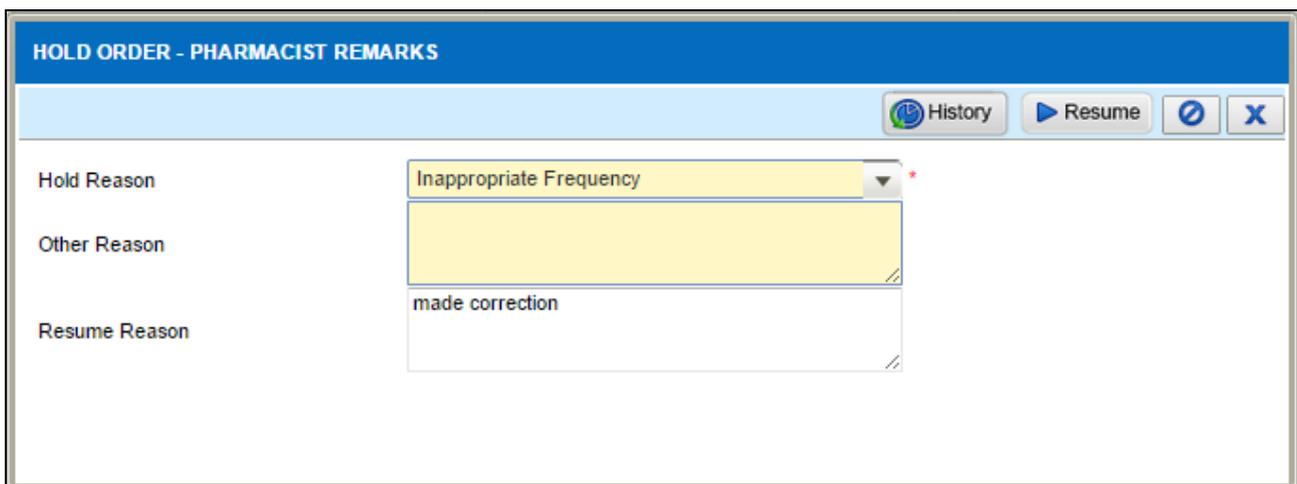
PRESCRIPTION PROCEED TO DISPENSING Prepare Label

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Remarks	Prev Disp	Status
Nutriflex Lipid Peri 1435kcal, 1.875L	1500 ml	1 bag	Details	0 bag	1 bag	Remarks	0 bag	VERIFIED HOLD

Figure 4.9-5 PN Preparation

Note

- Click on the  button to select 'Resume Order' as per Figure 4.9-5.



HOLD ORDER - PHARMACIST REMARKS

History Resume X

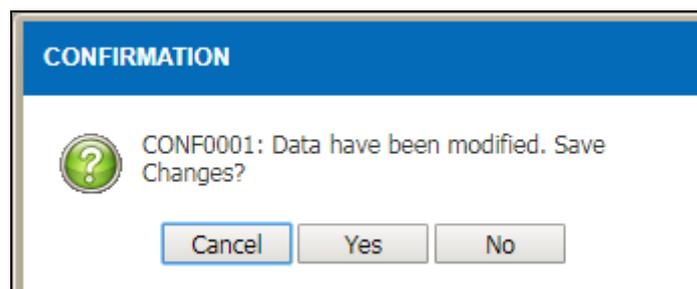
Hold Reason: Inappropriate Frequency *

Other Reason: [REDACTED]

Resume Reason: made correction

Figure 4.9-6 Hold Order-Pharmacist Remarks

- Click on the  button to resume hold order as per Figure 4.9-6.
- Click on the  button to close window and alert message will be displayed as per Figure 4.9-7.



CONFIRMATION

CONF0001: Data have been modified. Save Changes?

Cancel Yes No

Figure 4.9-7 Confirmation Alert Message

Note

- Click on the  button to confirm save record.
- Click on the  button as per Figure 4.9-6 to view history of hold order reason history listing 4.9-8.

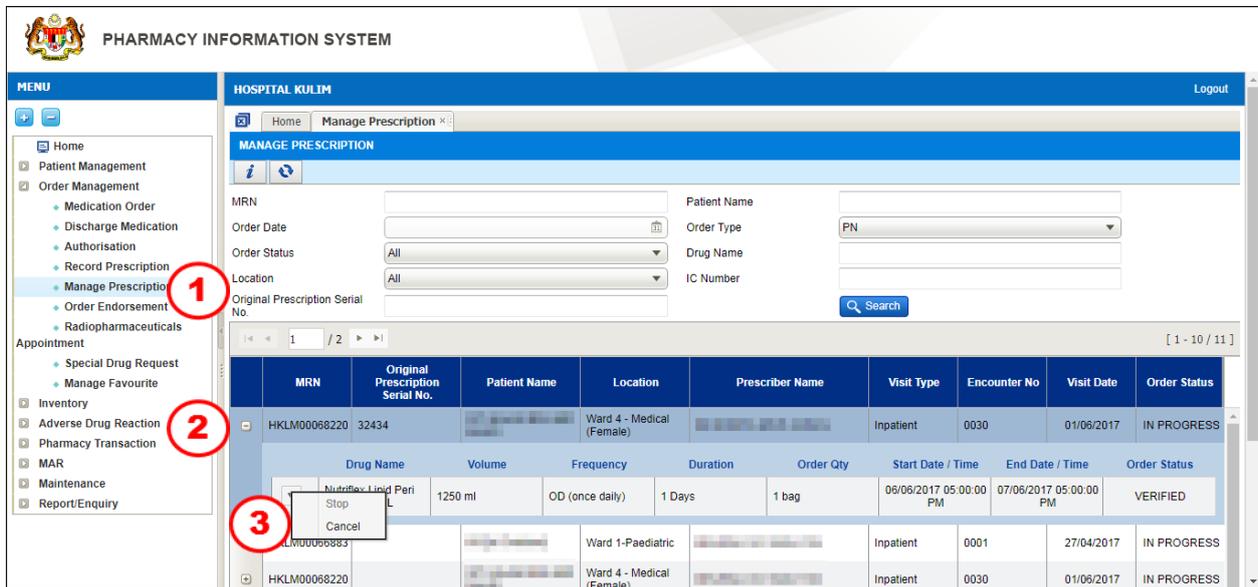


Date/Time	Screen	Hold Reason	Remarks	Resume Remarks	Updated By
20/03/2015 09:42 AM	Preparation	Inappropriate Frequency			Shantasaroopini a/p Sathia Moorthy

Figure 4.9-8 Hold Order Reason History Listing

5.0 Manage Prescription

5.1 Cancel/Stop Order



PHARMACY INFORMATION SYSTEM

HOSPITAL KULIM Logout

Home Manage Prescription

MANAGE PRESCRIPTION

MRN: Patient Name:
 Order Date: Order Type:
 Order Status: Drug Name:
 Location: IC Number:
 Original Prescription Serial No.:

[1 - 10 / 11]

MRN	Original Prescription Serial No.	Patient Name	Location	Prescriber Name	Visit Type	Encounter No	Visit Date	Order Status
HKLM00068220	32434	[Redacted]	Ward 4 - Medical (Female)	[Redacted]	Inpatient	0030	01/06/2017	IN PROGRESS
[Redacted]	[Redacted]	[Redacted]	Ward 1-Paediatric	[Redacted]	Inpatient	0001	27/04/2017	IN PROGRESS
HKLM00068220	[Redacted]	[Redacted]	Ward 4 - Medical (Female)	[Redacted]	Inpatient	0030	01/06/2017	IN PROGRESS

Drug Name: Nutriflex Liquid Peri, Volume: 1250 ml, Frequency: OD (once daily), Duration: 1 Days, Order Qty: 1 bag, Start Date / Time: 06/06/2017 05:00:00 PM, End Date / Time: 07/06/2017 05:00:00 PM, Order Status: VERIFIED

Buttons: Stop, Cancel

Figure 5.1-1 Manage Prescription - stop/cancel order

Cancel and Stop Order screen allow user to cancel and stop prescription which is wrongly prescribe or need to stop the medication

STEP 1

Click on 'Order Management' menu and click on 'Manage Prescription' sub-menu

Note

- Prescriber have the options to view patient by click the check box :-
 - a) Show All
- By default list of patient will be displayed according to prescriber location access.
- Various search criteria is provided as below:
 - a) MRN
 - b) Patient Name
 - c) Order Date
 - d) Order Type
 - e) Order Status
 - f) Drug name
 - g) Location

STEP 2

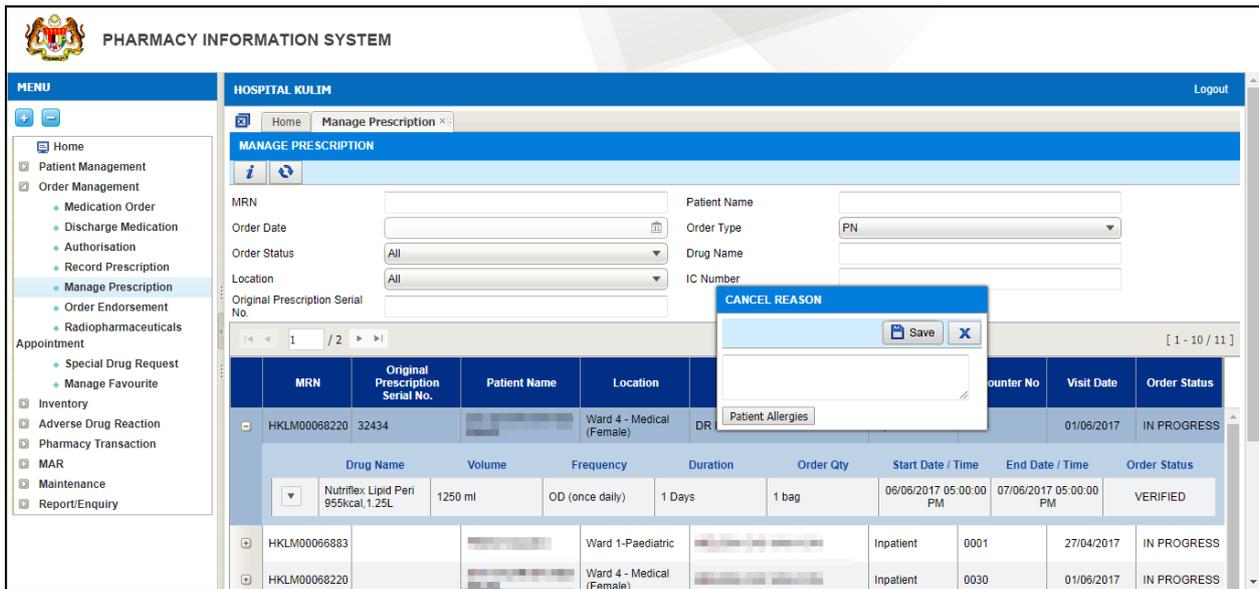
Click on the  expand button to display order details as per Figure 5.1-1

STEP 3

Right click mouse on the  button and select 'Cancel' as per Figure 5.1-1

Note

- Select 'Cancel' function to cancel order that have not yet been dispensed to patient and system will display 'Cancel Reason' screen as per Figure 5.1-2.
- Enter reason for cancel order and click on the  button to save record.
- Select 'Stop' function to stop order that has dispensed to patient as per Figure 5.1-1.



The screenshot shows the 'PHARMACY INFORMATION SYSTEM' interface for 'HOSPITAL KULIM'. The main window is titled 'MANAGE PRESCRIPTION' and contains several input fields for MRN, Patient Name, Order Date, Order Status, Location, and Original Prescription Serial No. A 'CANCEL REASON' dialog box is open, prompting the user to enter a reason for cancellation. Below the dialog box is a table of prescriptions with columns for MRN, Original Prescription Serial No., Patient Name, Location, Drug Name, Volume, Frequency, Duration, Order Qty, Start Date / Time, End Date / Time, and Order Status. The table contains three rows of data, with the first row highlighted.

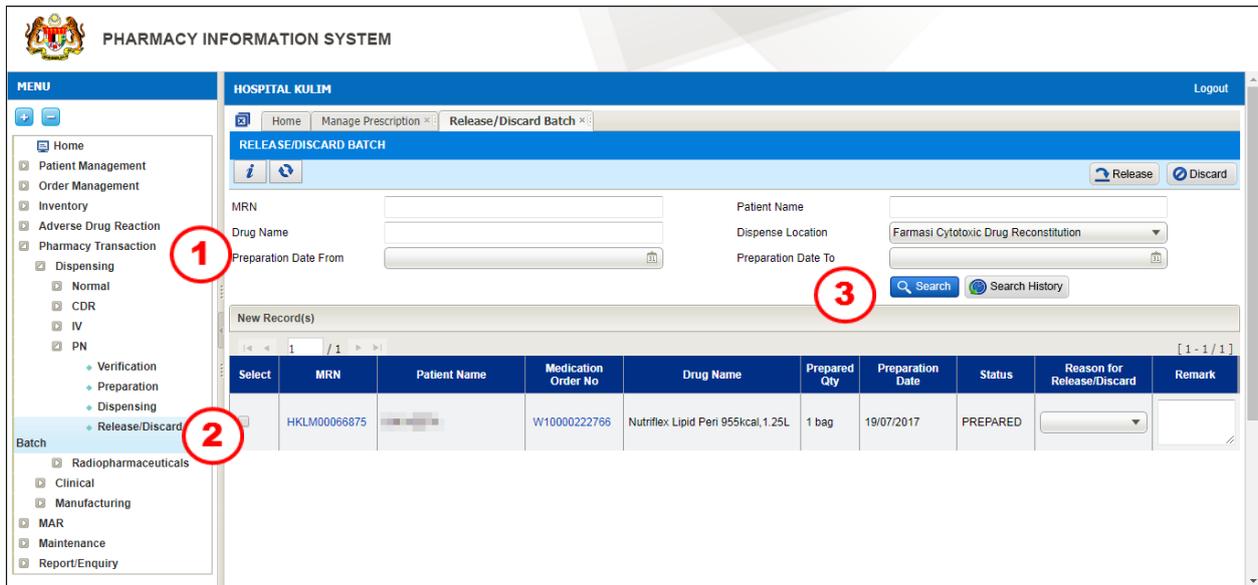
MRN	Original Prescription Serial No.	Patient Name	Location	Drug Name	Volume	Frequency	Duration	Order Qty	Start Date / Time	End Date / Time	Order Status
HKLM00068220	32434	[Redacted]	Ward 4 - Medical (Female)	Nutriflex Lipid Peri 955kcal, 1.25L	1250 ml	OD (once daily)	1 Days	1 bag	06/06/2017 05:00:00 PM	07/06/2017 05:00:00 PM	IN PROGRESS
HKLM00068883		[Redacted]	Ward 1 - Paediatric								IN PROGRESS
HKLM00068220		[Redacted]	Ward 4 - Medical (Female)								IN PROGRESS

Figure 5.1-2 Cancel reason

6.0 Release/Discard Batch

Note

- Release function is to release and update back stock into inventory.
- Discard function is to discard stock from inventory even not doing dispensing.



PHARMACY INFORMATION SYSTEM

HOSPITAL KULIM

Home | Manage Prescription | Release/Discard Batch

RELEASE/DISCARD BATCH

MRN: Patient Name:

Drug Name: Dispense Location:

Preparation Date From: Preparation Date To:

New Record(s)

Select	MRN	Patient Name	Medication Order No	Drug Name	Prepared Qty	Preparation Date	Status	Reason for Release/Discard	Remark
<input type="checkbox"/>	HKLM00066875	[REDACTED]	W10000222766	Nutriflex Lipid Peri 955kcal, 1.25L	1 bag	19/07/2017	PREPARED	<input type="text"/>	

Figure 6.0-1 Release/Discard Batch Listing Page

STEP 1`

Click on 'Pharmacy Transaction' menu follow by 'Dispensing' sub menu and select 'PN'

STEP 2

Click on 'Release/Discard Batch' function

Note

Search patient record based :-

No	Field	Description	Remark
a	MRN	Patient Medical Record Number	Search option: <ul style="list-style-type: none"> • Type the MRN either full or partial: <i>Example: HPSF00001234 or "1234"</i>
b	Patient Name	Patient Name	Allow to search by full name or partial
c	Drug Name	Drug Name	Allow to search by full name or partial drug name
d	Dispense Location	Dispensing location. (It will list down all active location)	Able to filter and search patient name by dispensing location

Table 6.0-1 Patient Record Search

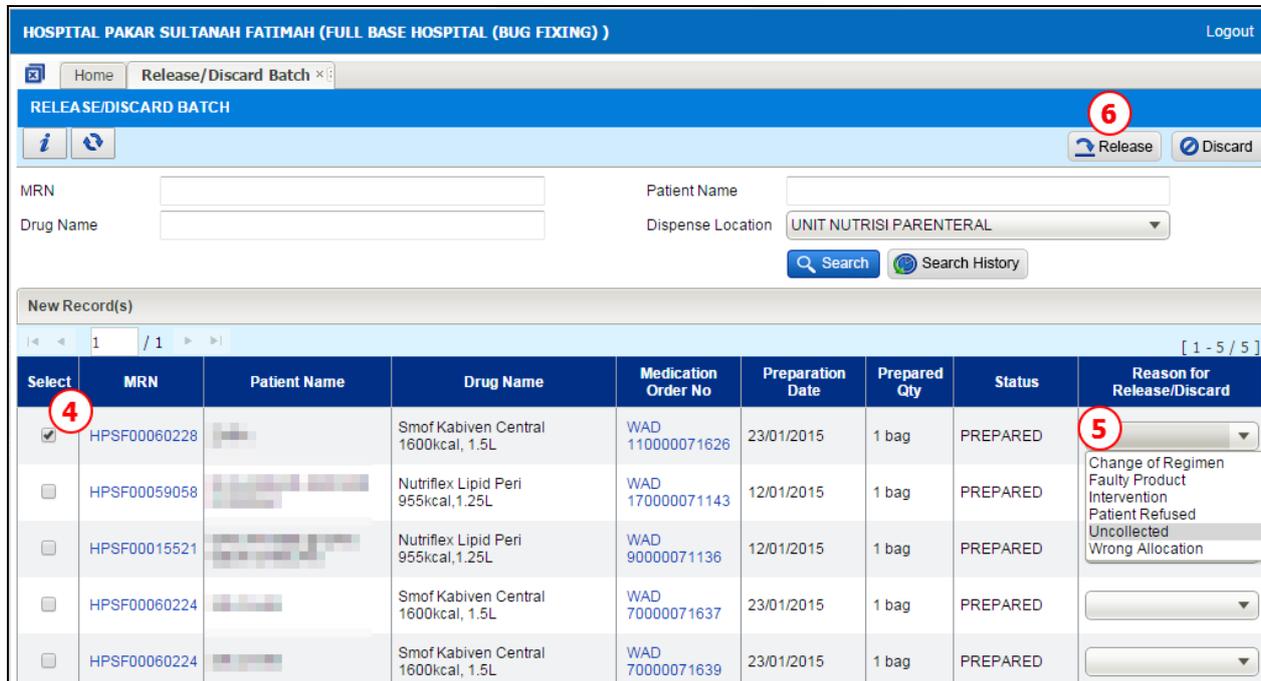
STEP 3

Click on the  button to search patient

Note

- Search result of patient record list will be displayed:
 - MRN
 - Patient Name
 - Drug Name
 - Medication Order No
 - Preparation Date
 - Prepared Qty

- Status
- Reason for Discard



Select	MRN	Patient Name	Drug Name	Medication Order No	Preparation Date	Prepared Qty	Status	Reason for Release/Discard
<input checked="" type="checkbox"/>	HPSF00060228	[REDACTED]	Smof Kabiven Central 1600kcal, 1.5L	WAD 110000071626	23/01/2015	1 bag	PREPARED	Change of Regimen
<input type="checkbox"/>	HPSF00059058	[REDACTED]	Nutriflex Lipid Peri 955kcal, 1.25L	WAD 170000071143	12/01/2015	1 bag	PREPARED	Faulty Product
<input type="checkbox"/>	HPSF00015521	[REDACTED]	Nutriflex Lipid Peri 955kcal, 1.25L	WAD 90000071136	12/01/2015	1 bag	PREPARED	Intervention
<input type="checkbox"/>	HPSF00060224	[REDACTED]	Smof Kabiven Central 1600kcal, 1.5L	WAD 70000071637	23/01/2015	1 bag	PREPARED	Patient Refused
<input type="checkbox"/>	HPSF00060224	[REDACTED]	Smof Kabiven Central 1600kcal, 1.5L	WAD 70000071639	23/01/2015	1 bag	PREPARED	Uncollected
								Wrong Allocation

Figure 6.0-2 Release/Discard Batch

STEP 4

Select and check the checkbox to select order at the **Select** column

STEP 5

Select the **Reason for Release and Discard** from dropdown box:

- Change of Regimen
- Faulty Product
- Intervention
- Patient Refused
- Uncollected
- Wrong Allocation

STEP 6

Click on the  button to release batch and inventory stock will be updated

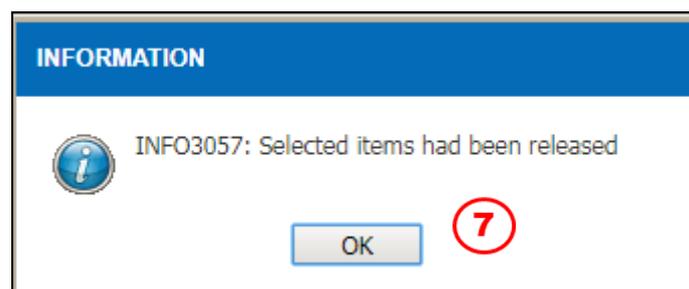
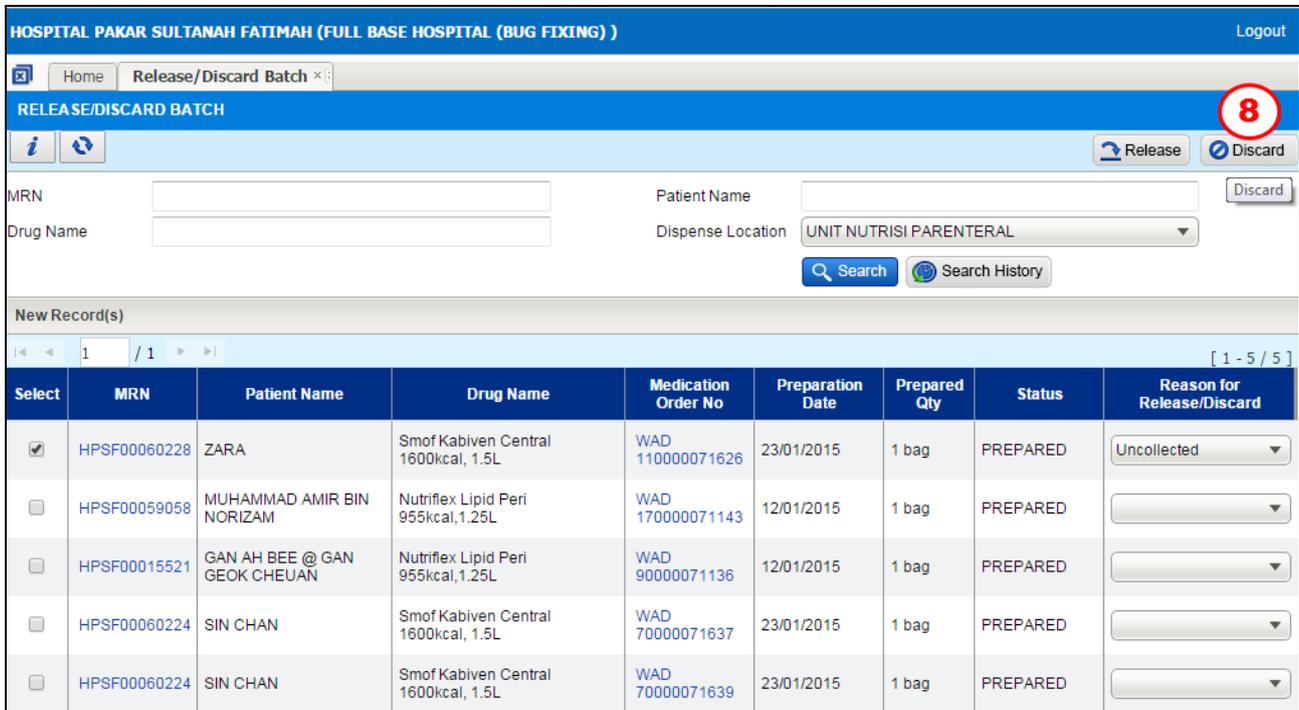


Figure 6.0-3 Alert Message

STEP 7

Click on the  button to release order batch



Select	MRN	Patient Name	Drug Name	Medication Order No	Preparation Date	Prepared Qty	Status	Reason for Release/Discard
<input checked="" type="checkbox"/>	HPSF00060228	ZARA	Smof Kabiven Central 1600kcal, 1.5L	WAD 110000071626	23/01/2015	1 bag	PREPARED	Uncollected
<input type="checkbox"/>	HPSF00059058	MUHAMMAD AMIR BIN NORIZAM	Nutriflex Lipid Peri 955kcal, 1.25L	WAD 170000071143	12/01/2015	1 bag	PREPARED	
<input type="checkbox"/>	HPSF00015521	GAN AH BEE @ GAN GEOK CHEUAN	Nutriflex Lipid Peri 955kcal, 1.25L	WAD 90000071136	12/01/2015	1 bag	PREPARED	
<input type="checkbox"/>	HPSF00060224	SIN CHAN	Smof Kabiven Central 1600kcal, 1.5L	WAD 70000071637	23/01/2015	1 bag	PREPARED	
<input type="checkbox"/>	HPSF00060224	SIN CHAN	Smof Kabiven Central 1600kcal, 1.5L	WAD 70000071639	23/01/2015	1 bag	PREPARED	

Figure 6.0-4 Release / Discard Batch

STEP 8

Click on the  button to discard batch and inventory stock will be updated

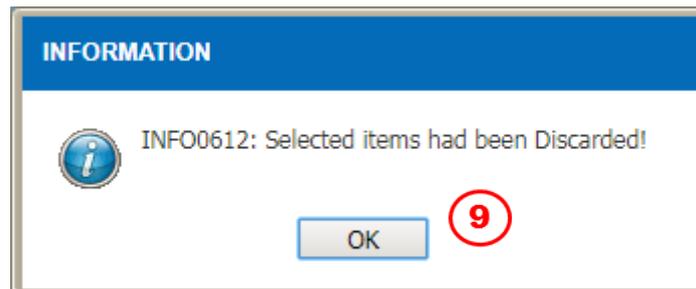


Figure 6.0-5 Information Alert Message

STEP 9

Click on the  button to discard batch

Note

Click on the  button to view release/discard history as Figure 6.0-6.



PHARMACY INFORMATION SYSTEM

HOSPITAL KUALA LUMPUR Logout

Home Preparation **Release/Discard Batch**

RELEASE/DISCARD BATCH Release Discard

MRN: Patient Name:

Drug Name: Dispense Location:

Preparation Date From: Preparation Date To:

IC No/Other Identification: Search Search History

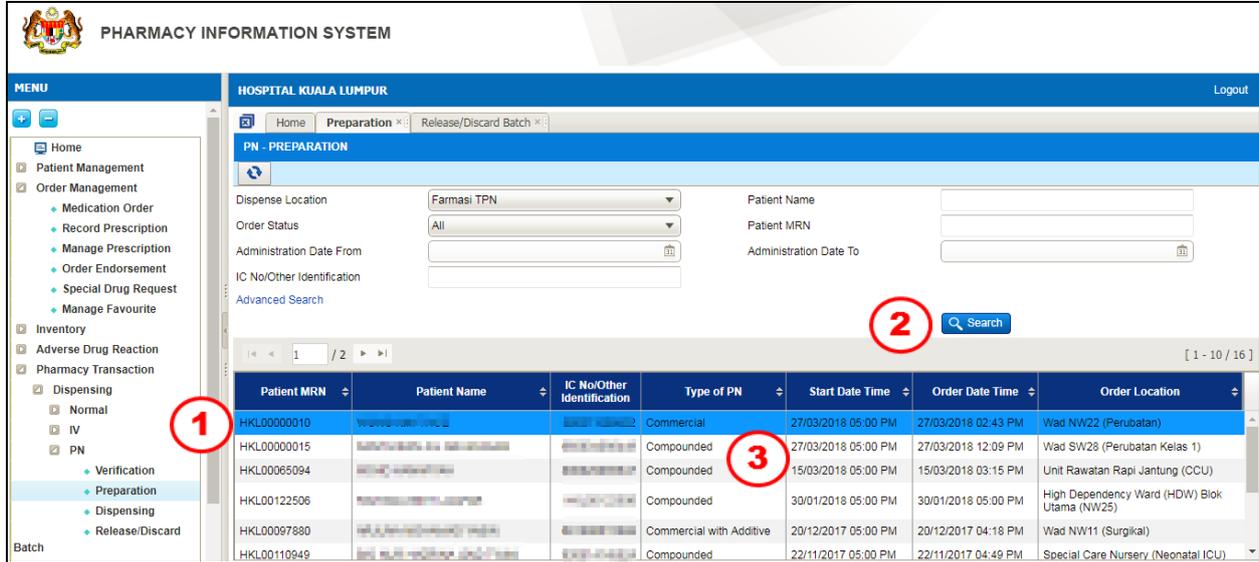
History Record(s) [1 - 10 / 696]

MRN	Patient Name	IC No/Other Identification	Medication Order No	Drug Name	Prepared Qty	Preparation Date	Status	Reason for Release/Discard	Remark
HKL00003177	[REDACTED]	[REDACTED]	PN COMPOUNDED	1 bag			Intervention		
HKL00027525	[REDACTED]	[REDACTED]	PN COMPOUNDED	1 bag		VERIFIED	Patient Refused		
HKL00070439	[REDACTED]	[REDACTED]	PN COMPOUNDED	1 bag		VERIFIED			
HKL00027155	[REDACTED]	[REDACTED]	PN COMPOUNDED	1 bag			Change of Regimen	CHANGE TO SIM/ASTATIN 40	
HKL00114607	[REDACTED]	[REDACTED]	PN COMPOUNDED	1 bag		VERIFIED	Intervention		
HKL00053990	[REDACTED]	[REDACTED]	PN COMPOUNDED	1 bag		VERIFIED	Wrong Allocation		
HKL00118486	[REDACTED]	[REDACTED]	PN COMPOUNDED	1 bag		VERIFIED	Wrong Allocation		
HKL00088111	[REDACTED]	[REDACTED]	PN COMPOUNDED	1 bag		VERIFIED	Wrong Allocation		

Figure 6.0-6 Release/Discard Batch

7.0 Outsource

Outsource allow user to send preparation request to another facility through PhIS



PHARMACY INFORMATION SYSTEM

HOSPITAL KUALA LUMPUR

Home Preparation Release/Discard Batch

PN - PREPARATION

Dispense Location: Farmasi TPN Patient Name:

Order Status: All Patient MRN:

Administration Date From: Administration Date To:

IC No/Other Identification:

Advanced Search 2

Patient MRN	Patient Name	IC No/Other Identification	Type of PN	Start Date Time	Order Date Time	Order Location
HKL00000010	Wong Nam Yee		Commercial	27/03/2018 05:00 PM	27/03/2018 02:43 PM	Wad NW22 (Perubatan)
HKL00000015	Wong Nam Yee		Compounded	27/03/2018 05:00 PM	27/03/2018 12:09 PM	Wad SW28 (Perubatan Kelas 1)
HKL00065094	Wong Nam Yee		Compounded	15/03/2018 05:00 PM	15/03/2018 03:15 PM	Unit Rawatan Rapi Jantung (CCU)
HKL00122506	Wong Nam Yee		Compounded	30/01/2018 05:00 PM	30/01/2018 05:00 PM	High Dependency Ward (HDW) Blok Utama (NW25)
HKL00097880	Wong Nam Yee		Commercial with Additive	20/12/2017 05:00 PM	20/12/2017 04:18 PM	Wad NW11 (Surgical)
HKL00110949	Wong Nam Yee		Compounded	22/11/2017 05:00 PM	22/11/2017 04:49 PM	Special Care Nursery (Neonatal ICU)

Figure 7.0-1 PN Preparation Listing Page

STEP 1

Click on 'Pharmacy Transaction' menu follow by 'Dispensing' and click on 'PN' then 'Preparation' sub-menu

Note

- Various search criteria is provided as below:
 - Dispense Location
 - Patient Name
 - Order Status
 - Patient MRN
- Click on the Advanced Search hyperlink for advance search.

STEP 2

Click on the Search button and system will display related order

STEP 3

Double click on the selected patient record and system will display PN Dispensing screen as per Figure 7.0-2



PN PREPARATION

Prescription X

Mykad: [redacted] Age: 34 Years 03 Months 24 Days Gender: Male MRN: HKLM00198317

Address: [redacted] Phone And Email: [redacted] Diagnosis: [redacted] Known Allergies: [redacted]

Height: 165 cm Weight: 56 kg BMI/BSA: 20.6 / 1.6 m² Update (Last Updated: 24/06/2019) Nationality: Warganegara

ADR | Lab Parameter | Counselling History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment

Encounter No: 0005 Actual Admission Date: 24/06/2019 Visit Location: Ward 3 -Medical (Male) Room No/Bed No: Rx No: W30000403085 Order By: Transcribed By:

PHARMACY ORDER

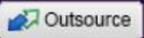
Prepared Date/Time: 29/07/2019 01:14 PM

PRESCRIPTION PROCEED TO DISPENSING Prepare Worksheet Label Outsource

Drug	Volume	Order Qty	Order Details	Prepared Qty	Balance Qty	Prepare Worksheet	Remarks	Prev Disp	Status
PN Compounded Adult	2000 ml	1 bag	Details	1 bag	1 bag	Details	Remarks	0 bag	VERIFIED

Figure 7.0-2 PN Preparation

STEP 4

Click on the  button to prepare outsource product

OUTSOURCE DETAILS

Send Outsource Request X

Mykad: [redacted] Age: 34 Years 03 Months 24 Days Gender: Male MRN: HKLM00198317

Address: [redacted] Phone And Email: [redacted] Diagnosis: [redacted] Known Allergies: [redacted]

Height: 165 cm Weight: 56 kg BMI/BSA: 20.6 / 1.6 m² Update (Last Updated: 24/06/2019) Nationality: Warganegara

PHARMACY ORDER

Outsource No: [redacted]

Referred From: Hospital Kulim Referred To: Hospital Tanah Merah

Contact Person / Office: [redacted] Contact Person / Office: [redacted]

Contact no / Ext No: 056644345 Contact no / Ext No: 0122052544

Request Date/Time: 29/07/2019 1:19 PM Tentative Receipt Date: [redacted]

Remarks: [redacted]

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Remarks
W30000403085	24/06/2019 04:29:06 PM	PN Compounded Adult	Details	1	Remarks

Figure7.0-3 Outsource Details

STEP 5

Enter **Contact Person/office, Contact No/Ext/No., Request Date/Time** and **Remarks**

STEP 6

Enter **Referred To** by click on the search button

Note

Enter **Contact Person/office, Contact No/Ext/No.** and **Tentative Receipt Date.**

OUTSOURCE DETAILS 7

	Mykad: <input type="text" value="W30000403085"/>	Age: 34 Years 03 Months 24 Days	Gender: Male	MRN: HKLM00198317
Address: <input type="text" value="W30000403085"/>	Phone And Email: <input type="text" value="W30000403085"/>	Diagnosis: <input type="text" value="W30000403085"/>	Known Allergies	
Height: <input type="text" value="165"/> cm	Weight: <input type="text" value="56"/> kg	BMI/BSA: 20.6 / 1.6 m ²	<input type="button" value="Update"/> (Last Updated : 24/06/2019) Nationality : Warganegara	

PHARMACY ORDER

Outsource No: <input type="text" value=""/>	Referred From: <input type="text" value="Hospital Kulim"/>	Referred To: <input type="text" value="Hospital Tanah Merah"/>
Contact Person / Office: <input type="text" value="W30000403085"/>	Contact Person / Office: <input type="text" value="W30000403085"/>	Contact no / Ext No: <input type="text" value="0122052544"/>
Contact no / Ext No: <input type="text" value="056644345"/>	Contact no / Ext No: <input type="text" value="0122052544"/>	Tentative Receipt Date: <input type="text" value=""/>
Request Date/Time: 29/07/2019 1:19 PM	Remarks: <input type="text" value=""/>	

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Remarks
W30000403085	24/08/2019 04:29:06 PM	PN Compounded Adult	Details	1	Remarks

Figure 7.0-4 Outsource Details

STEP 7

Click on the button to send outsource request

CONFIRMATION

CONF0110: Are you sure you want to send Outsource Request?

8

Figure 7.0-5 Send Request Alert Message

STEP 8

Click on the button to send outsource request and Information on successful submission alert will appear as in Figure 7.0-6

INFORMATION

INFO0306: Outsource Request has been submitted successfully.

Figure 7.0-5 Successful Sent Request Alert Message

OUTSOURCE DETAILS 9

	Mykad: <input type="text" value="Mykad: [Placeholder]"/>	Age: 34 Years 03 Months 24 Days	Gender: Male	MRN: HKLM00198317
Address: <input type="text" value="Address: [Placeholder]"/>	Phone And Email: <input type="text" value="Phone And Email: [Placeholder]"/>	Diagnosis: <input type="text" value="Diagnosis: [Placeholder]"/>	Known Allergies	
Height: <input type="text" value="165"/> cm	Weight: <input type="text" value="56"/> kg	BMI/BSA: 20.6 / 1.6 m ²	<input type="button" value="Update"/> (Last Updated : 24/06/2019) Nationality : Warganegara	

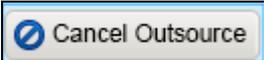
PHARMACY ORDER

Outsource No: <input type="text" value="PN-11-02060017290719-003"/>	
Referred From: <input type="text" value="Hospital Kulim"/>	Referred To: <input type="text" value="Hospital Tanah Merah"/>
Contact Person / Office: <input type="text" value="Contact Person / Office: [Placeholder]"/>	Contact Person / Office: <input type="text" value="Contact Person / Office: [Placeholder]"/>
Contact no / Ext No: <input type="text" value="056644345"/>	Contact no / Ext No: <input type="text" value="0122052544"/>
Request Date/Time: <input type="text" value="29/07/2019 1:19 PM"/>	Tentative Receipt Date: <input type="text" value=""/>
Remarks: <input type="text" value=""/>	

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Remarks
W30000403085	24/06/2019 04:29:06 PM	PN Compounded Adult	Details	1	Remarks

Figure 7.0-6 Outsource Details

Note

User is allowed to click at  to cancel the outsources

STEP 9

Click on the  button to close outsource screen as per Figure 7.0-6

Note

Once send for outsource referred facility will receive External Notification 'Online External PN Result Received: as shown in Figure 7.0-7



PHARMACY INFORMATION SYSTEM

HOSPITAL TANAH MERAH Logout

Home

TASK LIST

Transaction Type: All [1 - 10 / 113]

Transaction Type	Transaction No.	Item Group	Date/Time	Task Status	From Unit/Department	From User
Indent(External)	R18002012	Drug	06/07/2018 11:48 AM	Pending For Approval	PHARMACY (Hospital Tanah Merah)	...
Indent(External)	R18002045	Drug	11/07/2018 12:37 PM	Pending For Approval	PHARMACY (Hospital Tanah Merah)	...
Product Complaint	PC18000006	Drug	24/07/2018 04:19 PM	Investigation - Pending	FARMASI LOGISTIK	...
Product Complaint	PC18000007	Drug	24/07/2018 04:20 PM	Investigation - Pending	FARMASI LOGISTIK	...
TDM	TL0000183756		29/07/2018 11:19 AM	Pending To Verify	General Medicine	...
TDM	TL0000183757		29/07/2018 11:19 AM	Pending To Verify	General Medicine	...
TDM	TL0000183758		29/07/2018 11:20 AM	Pending To Verify	General Medicine	...
TDM	TL0000183759		29/07/2018 11:21 AM	Pending To Verify	General Medicine	...
TDM	TL0000183760		29/07/2018 11:22 AM	Pending To Verify	General Medicine	...
TDM	TL0000183761		29/07/2018 11:23 AM	Pending To Verify	General Medicine	...

NOTIFICATION

Notification Type	Notification No	Title	Date	From Facility/Unit	Attachment
External Notification					
Online External CDR Request Received:	0	Online External CDR Result Received:	2		
Online External PN Request Received:	4	Online External PN Result Received:	1		
External Radio Order Request Received:	4	External Radio Order Result Received:	1		
External TDM Request Received:	0	External TDM Result Received:	0		
Online Contract Request Received:	810				
Online SPUB R1 Request Received:	5				

Figure 7.0-7 PhIS Home Screen

STEP 10

Click on **Online External PN Result Received:** quantity button to view the transaction

OUTSOURCE LISTING

[1 - 1 / 1]

Outsource No	Patient Name	Gender	From(Hospital/Clinic)	Request Date/Time	Tentative Receipt Date	Register
PN-21-08050045270918-001	...	Male	Hospital Tanah Merah	27/09/2018 9:28 AM		Receive

Figure 7.0-8 Outsource Listing

STEP 11

Click on **Outsource No** or **Register** to view the record and record will be shown as Figure 7.0-9



OUTSOURCE DETAILS					
Cancel Outsource 📄 🔄 ✕					
	<input type="text" value="MyKid"/>	<input type="text" value="Age 06 Years 08 Months 27 Days"/>	<input type="text" value="Gender Male"/>	<input type="text" value="MRN htmh00101693"/>	
<input type="text" value="Address"/>	<input type="text" value="Phone And Email"/>	<input type="text" value="Diagnosis"/>			
Upload Photo	Height <input type="text" value=""/> cm	Weight <input type="text" value=""/> kg	BMI/BSA <input type="text" value="0/0"/> m ² (Last Updated :)	Nationality : Warganegara	
PHARMACY ORDER					
Outsource No	<input type="text" value="PN-21-08050045270918-001"/>				
Referred From	<input type="text" value="Hospital Tanah Merah"/>		Referred To	<input type="text" value="Klinik Kesihatan Greentown"/>	
Contact Person / Office	<input type="text" value=""/>		Contact Person / Office	<input type="text" value=""/>	
Contact no / Ext No	<input type="text" value="012-5192611"/>		Contact no / Ext No	<input type="text" value="0123654789"/>	
Request Date/Time	<input type="text" value="27/09/2018 9:28 AM"/>		Tentative Receipt Date	<input type="text" value=""/>	
Remarks	<input type="text" value=""/>				
<< < 1 > >> / 1					
Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Remarks
OPDC0000601095	27/09/2018 12:00:00 AM	PN Compounded Paediatric	Details	1	Remarks

Figure 7.0-9 Outsource Details

8.0 Acronyms

Abbreviation	Definition
PhIS	Pharmacy Information System
CPS	Clinical Pharmacy System
MOH	Ministry Of Health
HQ	Headquarters
PN	Parenteral Nutrition

9.0 Links to Clinical Modules

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