**BLOUZA TECH: SHALOM DENTAL UPDATE**

**Implementation of Laboratory, radiology and pharmacy Processes:**

Overview: blouza CareSol is designed to management all medical processes of patients right from visit to the hospital to exit. While all processes have been covered, documentation of and referrals of patients from doctors to laboratory, pharmacy and radiology units are not clearly organized or implemented. This document states functional processes to be implement the flows.

**Problem: The following problems were identified on the solution**

* 1. Doctors are unable to refer patients to laboratory for selected/specific test
	2. Doctors are unable to refer patients to radiology department for selected or specific radiography
	3. Doctors are unable to select, prescribe medications to patients and refer them to pharmacy for dispense
	4. Laboratory Unit is unable to receive tests request from clinical unit
	5. Laboratory unit is unable to conduct test and upload results for further process/procedure by doctor
	6. Radiology Unit is unable to receive tests request from clinical unit
	7. Radiology unit is unable to conduct test and upload results for further process/procedure by doctor
	8. Pharmacy Unit is unable to receive medication dispense request from clinical unit and attend to request accordingly

Solutions:

1. Add Laboratory test selection and referral function on patient case documentation flow by doctors
2. Add Laboratory management module
3. Add radiology test selection and referral function on patient case documentation flow by doctors
4. Add Laboratory management module
5. Add medication and prescription on patient case documentation flow by doctors
6. Add Pharmacy management module
7. Create new users
	1. Laboratory Scientist
	2. Radiology
	3. Pharmacy

**NOTE:**

1. **For Shalom CareSol, Nurses should have perform the roles of laboratory, radiology and pharmacy.**
2. **Replicate flows in legacy solution to shalom CareSol Laboratory, Raiology and Pharmarcy**

**User Story**

|  |  |  |  |
| --- | --- | --- | --- |
| User  | User Story | Description | Acceptance Criteria |
| Doctor | Laboratory* 1. I want to be able to select single or multiple laboratory test and send request on the patient Appointment details page to laboratory unit/department
 | * 1. On Patient Appointment details page, add section of laboratory referral with LoV for laboratory tests from doctors can select single or multiple select and send to laboratory button
	2. On click of send to laboratory, system should send list of tests to lab unit/dept
 | * + 1. System should display LoV of available lab tests and I searchable on click every key press
		2. Single or multiple select function should be active
		3. Should be able to send to laboratory unity and still continue with other documentation
 |
| * + 1. I want to be able to view tests results on patient history
 | * + 1. On click of view of patient case note I should be able to view test results uploaded or submitted from the laboratory unit
 | * 1. Laboratory reports should be displayed after doctors comment on medical history details page
 |
| Radiology* 1. I want to be able to select single or multiple radiology test and send request on the patient Appointment details page to radiology unit/department
 | * 1. On Patient Appointment details page, add section of radiology referral with LoV for radiology tests from which doctors can select single or multiple select and send to radiology button
	2. On click of send to radiology, system should send list of tests to Radiology unit/dept
 | * + 1. System should display LoV of available lab tests and I searchable on click every key press
		2. Single or multiple select function should be active
		3. Should be able to send to radiology unity and still continue with other documentation
 |
| * + 1. I want to be able to view Radiology tests results on patient history
 | * + 1. On click of view of patient case note I should be able to view test results uploaded or submitted from the radiology unit
 | * 1. Radiology reports should be displayed after doctors comment on medical history details page
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| Pharmacy1. I want to be able to select Medications, make prescriptions and send request to pharmacy to dispense
 | * 1. On Patient Appointment details page, add section of Medication in LoV for and doctor ability to detail prescription for each selected
	2. On click of send to send to Pharmacy, system should send list of tests to pharmacy unit/dept
 | * + 1. System should display LoV of available lab tests and I searchable on click every key press
		2. Single or multiple select function should be active
		3. Should be able to send to radiology unity and still continue with other documentation
 |
| Laboratory and Radiology User | 1. I want to be able to login as a user called Lab Scientist
2. I want to be able to login as a new user called Radiologist and apply flow as we have on laboratory
 | 1. Add 2 new user types Lab Scientists and radiologist
2. On user login have a side menu Lab and radiology Appointments depending on user login
	1. On click of Appointments display list patients with tests yet to be conducted
	2. On click of any patient display list of tests to be done and payment status
	3. If payment status is PAID, make view button active for
	4. On click of view button, display page for the user to manage test and complete process --🡪 see flow on legacy solution
 |  |
| Pharmacy | 1. I want to be able to login as a new user called pharmacist
 | 1. Add new user type Pharmacist
2. On user login have a side menu called appointment. On click of display list of patients
3. On click of any patient display list of medication to dispensed payment status
4. If payment status is PAID, make Dispensed else button should be inactive
5. On click of dispensed update record
 |  |

### ****Problem Statement: INTRODUCTION OF WALLET PAYMENT METHOD.****

Patients often make **advance payments** or leave **credit balances** at the hospital, but there is currently no structured or traceable way to manage these funds within the CareSol system. This leads to:

* Manual tracking of patient credits via paper or spreadsheets
* Lack of transparency and auditability
* Risk of errors, fraud, or misuse
* Poor patient experience when reconciling bills with previous payments

To solve this, there is a need to introduce a **wallet module** that enables patients to fund an internal wallet for future use and allows the hospital to manage, deduct, and audit these balances during service delivery.

**Blouzatech Solution: Introduce patient wallet management:**

**OVERVIEW OF THE WALLET MODULE:** The Wallet Module is being implemented to facilitate advanced deposits from patients and alternate settlement/payment method. This feature enables funds to be pre-loaded into a patient’s account using approved payment methods. Deposited funds can later be used to cover medical expenses. Each wallet keeps a secure record of transactions for transparency purposes. When billing occurs, patients can choose to use their wallet funds as a payment option

### ****User Stories****

1. **Patient View**

As a **patient**,
I want to be able to **fund my wallet in advance**,
So that I can **easily pay for services without needing cash each time**,
And view how my money is spent across visits.

1. **Cashier or accountant view:**

**As a Cashier or accountant,**

I want to be able to **fund patient wallet in advance**,
So that I can **easily process transactions with money/balance in the wallet**

I want to **view all wallet transactions**,
So that I can **ensure accurate deposits and withdrawals from patient wallets.**

1. **Admin and Managing Director**

As Admin
I want to **track all wallet activities and generate reports**,
So that I can **verify financial transactions and ensure no misuse occurs.**

**Requirements:**

**1. Wallet creation, and linkage**

* Each customer/patient should have a **wallet** tied to their profile, which will be created automatically once registered into the Care Sol with file/case note number or mobile number as unique identifier.
* Wallet should display:
	+ **Patient details**(name)
	+ **Balance** (current amount available)
	+ **Top Up Button** (for funding through any of the payment methods: transfer, online gateway, POS, etc).
	+ **Transaction history:** Should be able to generate wallet transaction history detailing funding and settlements/withdrawals.

**2. Implement Wallet as Payment Method**

* Add Wallet as payment method. On click:
	+ Process payment as long as wallet balance is higher or equal to amount to pay
	+ On successful payment, reduce wallet balance by settlement amount and settle the bill deduction was made for

**3. Create menu Wallet History / Ledger**

Each wallet should maintain:

* **Date**
* **Amount**
* **Type**: Credit / Debit
* **Performed by (**staff or system**)**
* **Balance after transaction**
* **Remarks / Notes**
* **Linked action (**invoice, refund, top-up: It means that **every wallet transaction** (whether it’s money coming in or going out) should be **traceable to the specific action or event that triggered it**.

**4. Refunds flow**

* Admin/ Accountant can **debit** the wallet (with permission level)
* Must be initiated by the cashier to the Accountant for Approval, with the following at least the following details
	+ Amount to refund
	+ Reason for refund
	+ Account to credit: Name, Account No., Bank
* Accountant must approve or disapproved from his page.
* If approved, all refunds must be a direct debit from approved hospital account to patients account.
* Transaction must be logged in history.

#### 5. ****Wallet Balance Display****

* Wallet balance is visible on:
	+ Patient profile
	+ Billing screen during payment
	+ Wallet history screen

**6. Security & Roles**

* Only authorized roles (Admin, Cashier, Accountant) can:
	+ Fund or debit wallets
	+ View full history
* Wallet actions should be traceable to staff accounts (for audit)

**7. UI/UX Flow**

* Patient Profile Page:
	+ Show “wallet” button
* Billing Page:
	+ Show wallet option as a payment method
	+ Auto-calculate if the wallet can cover the amount

**Acceptance Criteria:**

#### ****1.Patient Funds Wallet****

* Wallet should be credited via accepted funding methods.
* System updates balance and logs the transaction immediately to reflect on wallet.
* Staff must enter remarks, method, and amount correctly (especially when they are funding manually through the use of cash, POS).

#### 2. ****Wallet Used for Payments****

* Wallet should show as a payment option.
* Successful transaction amount must not be greater that wallet balance
* Partial or full deduction should be made from wallet, if selected as payment method.
* Invoice immediately links back to the wallet transaction.

#### 3. ****Transaction History****

* There should be a visible ledger of all wallet activity linked to patient profile.
* Each record should include:
	+ Date
	+ Type
	+ Amount
	+ Balance after transaction
	+ Source action or reference
* Transactions are immutable (no editing).

#### 4. ****Refunds****

* Admin/ Accountant can perform debit actions with reason input.
* These debits appear in the ledger with "refund" tag or remark.
* Balance updates accordingly.

#### 5. ****Permissions****

* Only permitted staff can perform wallet operations.

#### 6. ****Finance Reporting****

* Reports can be filtered by time, patient, staff who performed action, or transaction type.
* Export options available (printable).