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Creating an Ecosystem for Quality

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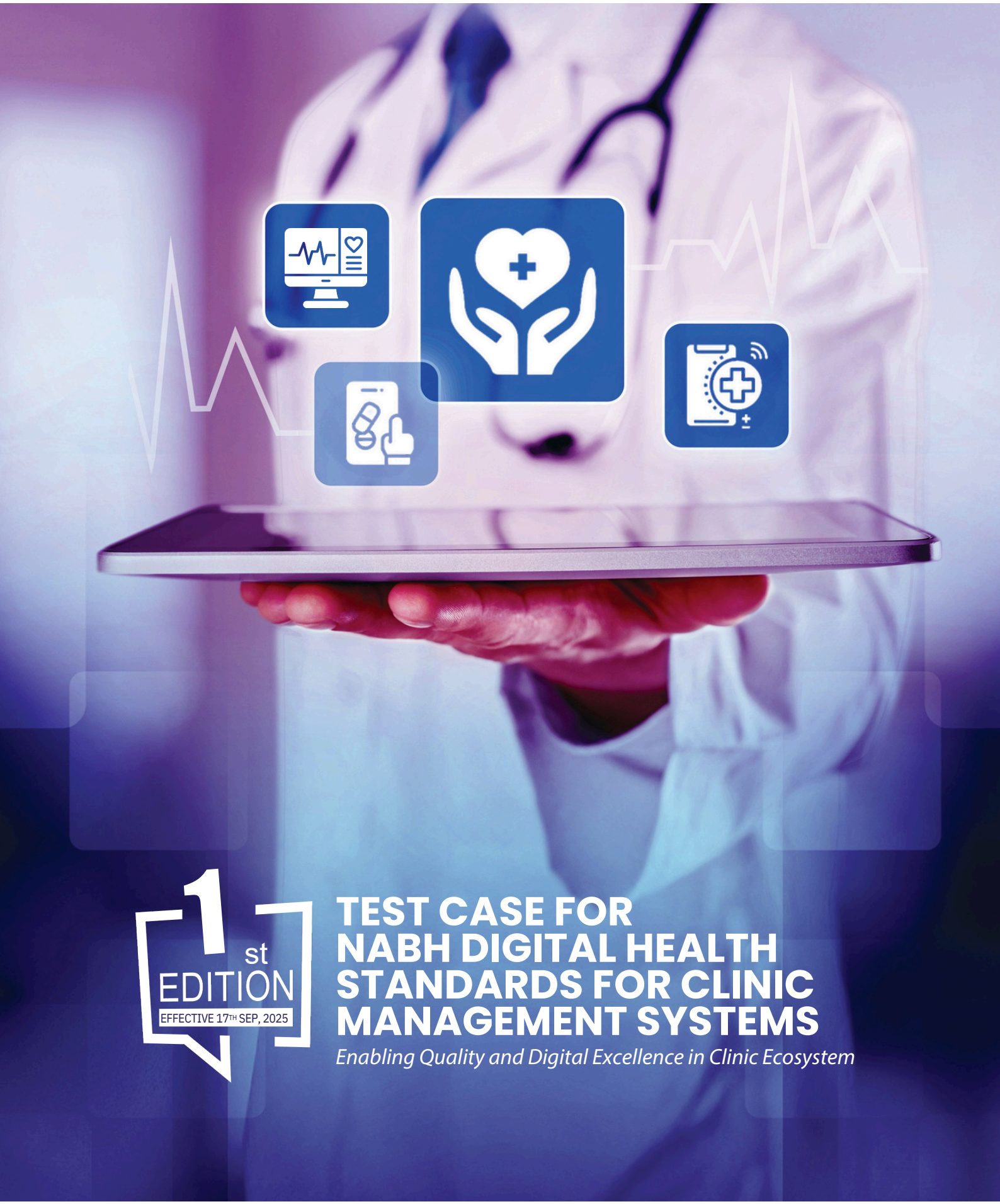
National Accreditation Board For Hospitals and Healthcare Providers
NABH



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TEST CASE FOR NABH DIGITAL HEALTH STANDARDS FOR CLINIC MANAGEMENT SYSTEMS

Enabling Quality and Digital Excellence in Clinic Ecosystem

QUALITY : SAFETY : WELLNESS

NABH Digital Health Standards for Clinic Management Systems (CMS)

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FOREWORD

For nearly two decades, the National Accreditation Board for Hospitals & Healthcare Providers (NABH), a constituent board of the Quality Council of India (QCI), has promoted quality and excellence in healthcare services. NABH standards have significantly transformed healthcare delivery, providing professionals, patients, and their families with a deep understanding of their rights and responsibilities.

After the successful launch of NABH digital health standards for HIS/EMR systems in September 2024, we are pleased to announce NABH's latest digital health initiative – India's first edition of standards for Clinic Management Systems (CMS). These standards, consisting of Objective Elements (OEs), are structured into four levels: Core, Commitment, Achievement, and Excellence, and address important clinical and administrative workflows, data security, and interoperability functionalities.

NABH acknowledges the contributions of the National Health Authority (NHA) and the Ayushman Bharat Digital Mission (ABDM) platform in promoting interoperability. Consequently, NABH standards for CMS require products to be evaluated and approved by NHA for ABDM and security requirements before applying for NABH certification. This alignment ensures that robust Digital Health solutions are certified and adopted by facilities across India.

Inspired by global standards and best practices in security, NABH, in collaboration with industry experts, has developed these standards to enhance patient care nationwide.

We urge all clinicians, healthcare facilities, CMS companies, stakeholders, and policymakers to support the adoption of these standards to elevate healthcare quality and promote patient-centric care. Together, we can contribute to a healthier India through cutting-edge digital health solutions.

We extend our best wishes to all CMS companies adopting these standards and applaud their commitment to quality and patient safety. May this edition inspire a new era of excellence in healthcare, ensuring every patient receives the highest standard of care.

Jai Hind

Dr. Atul Mohan Kochhar
CEO, NABH

ACKNOWLEDGEMENT

The creation of the inaugural NABH Standards for Clinic Management Systems saw invaluable contributions from several individuals and organizations. **Shri Jaxay Shah, Chairperson of QCI**, led the promotion of quality at grassroots levels across India. **Mr. Rizwan Koita, Chairperson of NABH**, provided pivotal guidance and support. **Mr. Chakravarthy T. Kannan, Secretary General of QCI**, ensured resource availability.

The NABH board members offered insightful suggestions, enhancing the quality of the standards and guidebook significantly.

NABH's Technical Committee meticulously incorporated best practices from extensive academic research and stakeholder feedback. Special thanks to the Koita Foundation and PwC teams for their technical contributions.

Thanks are also due to the dedicated assessors, and other stakeholders for their valuable feedback. Lastly, appreciation goes to the officers at the NABH Secretariat for their dedication in completing this work on time.

Jai Hind

Dr. Atul Mohan Kochhar
CEO, NABH

CONTENTS

Introduction to CMS Standards and Objective Elements Test Cases

This document contains the test cases developed for evaluating the NABH Digital Health Standards and objectives for CMS systems. These test cases are meticulously designed to ensure that the CMS systems meet the required performance, functionality, and compliance standards. The purpose of these test cases is to provide a structured, unified, and comprehensive approach to testing, enabling NABH, CMS vendors to maintain a uniform standard while testing different CMS products. With the help of these test cases, the CMS vendor can assess the current gaps in their systems while doing the Self-Assessment (SAT) and accomplish the testing phase successfully.

Structure of the Test Case

Each test case is divided into four key parts to ensure thorough and systematic testing.

1. **Test Case:** This section provides a brief description of the specific feature or functionality being tested. It outlines the objective of the test.
2. **Test Validation:** This section outlines the mode of testing. An objective can be validated by self-attestation (submitting relevant certification) or by manually demonstrating the steps of the test case.
3. **Pre-requisite:** Before executing the test case, certain conditions or configurations must be in place. This section lists all the necessary prerequisites, including system settings, data requirements, and any other dependencies that must be satisfied.
4. **Steps to Follow:** This section provides a detailed, step-by-step procedure to execute the test case. Each step is carefully articulated to ensure clarity and consistency, enabling testers to accurately carry out the test.
5. **Expected Outcome:** This section describes the anticipated results upon successful execution of the test case. It serves as a benchmark against which actual outcomes are compared to determine whether the test has passed or failed.

Usage Guidelines

- **Preparation:** Ensure all prerequisites are met before starting the test.
- **Execution:** Follow the steps meticulously to avoid any discrepancies.
- **Documentation:** Record the actual outcomes and compare them with the expected outcomes.
- **Reporting:** Document any deviations, bugs, or issues encountered during testing and take necessary actions.

CHAPTER 1

Access, Assessment and Care of Patients (AAC)

Test Cases for NABH Digital Health Standard for CMS

By following these structured test cases, we aim to provide a robust framework for testing CMS, ensuring they are reliable, efficient, and secure.

When testing objective elements, it is important to note that some may have multiple test cases. Additionally, please be aware that the scoring for objective elements with multiple test cases is consolidated into a single score.

AAC.1. The system manages patient registration and referral processes.		
AAC.1.a. The system registers a new patient and has the ability to modify the details as and when required.		
Test Case 1. Verify that the system carries out new patient registration, manages existing patient registrations, and accurately captures all essential demographic details such as Patient's Name, Gender, Age, Date of birth, address, mobile number, and any registered National ID (like ABHA, Aadhaar, driving license). If applicable, the system can capture payment preferences and insurance information.		
Pre-requisite for test	**Test Validation**	
1. Healthcare providers or administrative staff are logged in to the system using valid login credentials. 2. Keep dummy patient data ready for testing the registration process.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Scenario 1 **Step 1.** Navigate to the section that register patients **Step 2.** Simulate a dummy patient registration and enter all essential demographic details such as Patient's Name, Gender, Age, Date of birth, address, mobile number, and any registered National ID (like ABHA, Aadhaar, driving license). **Step 3.** Enter the patient's payment preferences (like Cash, UPI, Credit Card, Debit Card, etc.) and insurance details such as insurance provider	**1.** The system successfully allows patient registration and modification of editable field values only.	Select Yes/No

name, policy number, coverage type, and validity period etc. Ensure the information is entered in the appropriate fields and saved. (Optional) **Step 4.** Click to submit the patient registration form and verify that the system confirms successful submission. **Step 5.** Use the system search functionality to retrieve the dummy patient record from the system **Step 6.** Check and confirm that the system accurately captures and records all entered details during the registration process, ensuring that the information is correctly saved and accessible within the patient's record.		
Scenario 2 **Step 1.** Navigate to the section where registration records of existing patients are available. **Step 2.** Select the dummy patient registration record. **Step3.** Select the option to edit the existing dummy patient record and update registration details such as demographics, Aadhaar information, insurance, and payment preferences, etc. **Step 4.** Click to submit the updated patient registration form and verify that the system confirms successful submission. **Step 5.** Use the system search functionality to retrieve the patient record from the system **Step 6.** Check and confirm that the system saves all updated details correctly		

AAC.1. The system manages patient registration and referral processes.	
AAC.1.a. The system registers a new patient and has the ability to modify the details as and when required.	
Test Case 2. Verify that the system configures mandatory and non-mandatory fields during the patient registration process.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. 2. Keep dummy patient data ready for testing, including valid demographic details, Aadhaar card information, insurance details, and payment preferences available for use. **3.** The patient registration form clearly indicates mandatory and non-mandatory fields.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the module that administers patient registration. **Step 2.** Access the configuration settings for patient registration to view or modify the list of fields available during the registration process. **Step 3.** Verify that the system allows administrators to designate specific fields as mandatory (e.g., Patient's name, Gender, Age, Date of birth, address, mobile number, National ID (like ABHA, Aadhaar, driving license), contact information and others as non-mandatory (e.g., secondary contact, alternate phone number). **Step 4.** Configure a set of mandatory fields and save the settings. **Step 5.** Initiate a new patient registration and attempt to submit the form without filling in one or more mandatory fields. **Step 6.** Check and confirm that the system prevents form submission and displays an appropriate error message or alert indicating the missing mandatory fields. **Step 7.** Fill in the mandatory fields and submit the registration form to ensure that the system allows submission only when all required mandatory information is provided. **Step 8.** Repeat the registration process, this time leaving non-mandatory fields blank, and verify that the system allows the form to be submitted successfully without any errors.	**1.** The form clearly identify the mandatory fields by using consistent and recognizable visual indicators, e.g, Asterisk Symbol (*), Red Border or Highlight, etc. **2.** Attempting to submit the form without filling in mandatory fields throws an error message and prevents submission. **3.** The system performs patient registration accurately, capturing all entered details, not allowing to submit the form without entering all mandatory details	Select Yes/No

AAC.1. The system manages patient registration and referral processes.	
AAC.1.b. The system verifies the patient's mobile number.	
Test Case . Verify that the system verifies the patient's mobile number via OTP.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. **2.** Keep all the relevant information about the dummy patient available for use. **3.** Test environment includes a mobile phone capable of receiving SMS messages.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the module that registers patients. **Step 2.** Initiate the patient registration process and enter the patient's mobile number in the designated field. **Step 3.** Trigger the OTP generation process by selecting the option to verify the mobile number. **Step 4.** Check and confirm that the system sends an OTP to the entered mobile number via SMS. **Step 5.** Enter an incorrect OTP and verify that the system displays an error message, indicating that the OTP is invalid and preventing further progress until the correct OTP is entered. **Step 6.** Enter the correct OTP received on the mobile number and verify that the system successfully completes the mobile number verification process. **Step 7.** Retrieve the dummy patient record from the system using search functionality **Step 8.** Check and confirm that the entered mobile number is saved as a primary source of communication.	1. System verifies the mobile number only when the correct OTP is entered. 2. System saved verified mobile number as a primary source of communication	Select Yes/No

AAC.1. The system manages patient registration and referral processes.	
AAC.1.c. The system captures the point of origin for each patient.	
Test Case . Verify that the system can capture and edit the point of origin of each registered patient.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. 2. Keep dummy patient data ready and available during testing	Manual

Steps to produce	Expected Outcome	Note/Deviation
Scenario 1 : Register a new dummy patient and capture the point of origin of registration **Step 1.** Navigate to the module that registers patients. **Step 2.** Initiate a new dummy patient registration and enter all required demographic details, including the patient's Name, Gender, Age, Date of Birth, Address, Mobile Number, Aadhaar card information, insurance details, and payment preferences (if applicable)	1. The system displays Point of Origin field distinctly for dummy patients 2. The system successfully save point of origin in record for dummy patients	Select Yes/No

Step 3. Select the appropriate "Point of Origin" from the available categories and save it (For example. Walk-in, Health Camp, Mobile App, Website, Call Centre, Referral) **Step 4.** Save and submit the registration form **Step 5.** Use the system search functionality to retrieve the dummy patient record from the system through the unique patient identifier. **Step 6.** Check and confirm that the 'Point of Origin' is correctly saved and displayed in the dummy patient's record as entered	**3.** The patient's point of origin is successfully updated to the new selection after editing.	
Scenario 2: Modify "Point of Origin" for an existing patient record Step 1. Navigate to the section that stores patient registration records. Step 2. Use the system search functionality to retrieve the dummy patient record from the system through the unique patient identifier. Step 3. Select dummy patient record and edit point of origin in dummy patient record (For example. Walk-in, Health Camp, Mobile App, Website, Call Centre, Referral, etc) Step 4. Save and submit the updated registration form for the dummy patient Step 5. Use the system search functionality to retrieve the dummy patient record from the system through the unique patient identifier. Step 6. Check and confirm that the 'Point of Origin' is correctly saved and displayed in the dummy patient's record as entered.		

AAC.1. The system manages patient registration and referral processes.	
AAC.1.d. The system generates unique patient identifier	
Test Case . Verify that the system generates a unique patient identifier (Numeric or alphanumeric) for every patient and detects and flags potential duplicate registrations.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. **2.** Keep all the relevant information about the dummy patient available for use	Manual

Steps to produce	Expected Outcome	Note/Deviation
Scenario 1. **Step 1.** Navigate to the module that registers patients. **Step 2.** Begin the patient registration process by entering all essential demographic details such as the Patient's Name, Gender, Age, Date of birth, address, mobile number, and any registered National ID (like ABHA, Aadhaar, driving license), insurance information, and payment preferences. **Step 3.** Complete the registration process and submit the information to the system. **Step 4.** Verify that the system generates a unique patient identifier (Numeric or alphanumeric) upon successful registration and associates it with the patient's record. **Step 5.** Check and confirm that the system-generated unique patient identifier is displayed in the patient's profile and on any related documentation or confirmation screens **Step 6.** Perform multiple patient registrations with different sets of patient details to ensure that the system generates a unique patient identifier for each patient, avoiding any duplication. **Step 7.** Use the system search functionality to retrieve the patient record by entering the unique patient identifier. **Step 8.** Check that only one patient record is retrieved for the given unique patient identifier, and it matches the dummy patient details entered for registration. **Step 9.** Navigate to other modules, such as Lab, Radiology etc, and use the created unique identifier to retrieve dummy patient data. Verify that the correct details of the dummy patient are retrieved.	**1.** The system successfully generates a unique patient identifier for each newly unique patient identifier **2.** Unique patient identifiers remain consistently distinct across all clinics, healthcare providers, and departments using the same software, or when integrated with other systems **3.** The system accurately identifies exact as well as potential duplicate patient entries based on matching or similar details.	Select Yes/No
Scenario 2. **Step 1.** Navigate to the section that registers patient. **Step 2.** Create a duplicate dummy patient entry with exactly the same details, for e.g., Patient's Name, date of birth, and mobile number as an existing patient record. **Step 3.** Try to save this dummy patient entry into the system and check that the system displays a clear and informative message to the user indicating that a duplicate record has been detected, including the details of the existing record.		

Step 4. Check that the system prevents the creation of a new record if a duplicate is detected, ensuring that only one record exists for each unique set of identifiers.		
Scenario 3. **Step 1.** Create another dummy patient entry with slightly varying details like name, age, or address, while some critical entries contain identical information like contact number, patient ID, etc. **Step 2.** Check that the system accurately indicates the possibility of a probable duplicate entry based on specified unique identifiers. **Step 3.** Review the identified duplicate entries to confirm that they share identical information, indicating potential duplication.		

AAC.1. The system manages patient registration and referral processes.		
AAC.1.e. The system has the capability to configure the unique patient identifier as per the clinic's requirements.		
Test Case . Verify that the system generates unique patient identifiers of consistent format based on various parameters. System links all kinds of patient records for various visits, which could be generated at either pharmacy, laboratory, etc., to the unique patient identifier of the respective patient.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. 2. Keep all the relevant information about the dummy patient available for use. 3. Parameters for generating unique patient identifiers are configured in the system. 4. Various test records from departments such as pharmacy, laboratory, etc., for a dummy patient should be available in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section with the functionalities related to the unique patient identifiers' configuration. **Step 2.** Create a relevant format for the unique patient identifier by specifying parameters like date, department, location, etc. as required.	**1.** The system configures unique patient identifiers based on specified parameters.	Select Yes/No

Step 3. Save the configuration settings for generating a unique patient identifier for the new patient. **Step 4.** Navigate to the patient registration module. **Step 5.** Initiate the dummy patient registration process by entering the required patient details, such as the Patient's name, Gender, Age, Date of birth, address, mobile number, and any registered National ID (like ABHA, Aadhaar, driving license). **Step 6.** Save and submit the registration form and verify that the system generates a unique patient identifier based on predefined parameters such as the patient's name, date of birth, or other specific criteria. **Step 7.** Check and confirm that the generated unique patient identifier follows a consistent format as configured. **Step 8.** Use the system's search functionality to retrieve the dummy patient record by entering the unique ID into the search field. **Step 9.** Check that the system retrieves the correct dummy patient data. **Step 10.** Perform multiple registrations using different sets of patient data to ensure that the system consistently generates a unique patient identifier for each patient according to the same format.	**2.** System is capable of retrieving patient data using a unique ID.	

AAC.1. The system manages patient registration and referral processes.		
AAC.1.f. The system has the capability to generate and capture patient's ABHA and link it to the unique patient identifier		
Test Case . Verified by external certification.		
Pre-requisite for test	**Test Validation**	
	External Certification	
Steps to produce	**Expected Outcome**	**Note/Deviation**
	Confirmation of ABDM certification.	Select Yes/No

AAC.1. The system manages patient registration and referral processes.		
AAC.1.g. The system checks and alerts duplicate patient registrations		
Test Case . Verify that the system accurately identifies duplicate patient entries based on unique patient identifier, Patient's name, gender, age, date of birth, address, mobile number, and any registered national ID (like ABHA, Aadhaar, driving license)		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. **2.** Keep a dummy patient record with unique patient identifiers such as patient's name, gender, age, date of birth, address, mobile number, and any registered National ID (like ABHA, Aadhaar, driving license) available for use.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Scenario 1: **Step 1.** Navigate to the section that registers patients. **Step 2.** Create a dummy patient entry with exactly the same details, for e.g., Patient's name, gender, age, date of birth, address, mobile number, and any registered national ID (like ABHA, Aadhaar, driving license) as an existing patient record. **Step 3.** Try to save this patient entry into the system. **Step 4.** Check and confirm that the system prevents the creation of a new record if a duplicate is detected, ensuring that only one record exists for each unique set of patient identifiers.	1. System is able to create unique patient ID. **2.** The system accurately identifies exact as well as potential duplicate patient entries based on matching or similar details.	Select Yes/No
Scenario 2: **Step 1.** Create another dummy patient entry with slightly varying details like patient's name, gender, age, date of birth, address, mobile number, and any registered national ID (like ABHA, Aadhaar, driving license), while some entries contain identical information like mobile number, unique patient identifier, etc. **Step 2.** Check that the system accurately indicates the possibility of a probable duplicate entry based on specified unique patient identifiers. **Step 3.** Review the identified duplicate entries to confirm that they share identical information, indicating potential duplication.		

AAC.1. The system manages patient registration and referral processes.

AAC.1.h. The system links all patient medical records to respective unique patient identifier.

Test Case . Verify that the system links all kinds of patient records, which could be generated at either e.g., consultation, pharmacy, laboratory, etc, to the unique patient identifier of the respective patient, to ensure that all their details can be fetched using the same unique patient identifier.

Pre-requisite for test	Test Validation
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. **2.** Keep a unique patient identifier for a dummy patient which has been previously created available for use. **3.** Various test records from departments such as pharmacy, laboratory, and daycare admission for a dummy patient should be available in the system. Consultation, pharmacy, laboratory, etc	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section related to patient registration. **Step 2.** Select an existing dummy patient with a unique patient identifier. **Step 3.** Access the pharmacy section and create a new prescription for the dummy patient. **Step 4.** Verify that the prescription details, including medication name, dosage, and dates, are correctly associated with the patient's unique patient identifier in the pharmacy records. **Step 5.** Access the laboratory module and order a set of diagnostic tests for the patient. **Step 6.** Verify that the test results and details are linked to the patient's unique patient identifier in the laboratory records. **Step 7.** Check that all patient records, including those from consultation, pharmacy, laboratory, etc are linked to the dummy patient's unique patient identifier. **Step 8.** Perform a search using the patient's unique patient identifier to retrieve all associated dummy patient records across different modules and departments. **Step 9.** Check that the search results display comprehensive details from all linked records, including pharmacy prescriptions, laboratory test results, and consultation reports.	**1.** All patient records generated from various departments are linked to the unique patient identifier of the respective patient.	Select Yes/No

AAC.1. The system manages patient registration and referral processes.		
AAC.1.i. The system automatically fills in relevant data fields when the unique patient identifier for an existing patient is entered.		
Test Case . Verify that the system auto-populates dummy patient data, including demographic details and medical history, by entering the unique patient identifier, facilitating efficient data retrieval for existing patients.		
Pre-requisite for test	**Test Validation**	
1. Healthcare providers with permission to manage patient information should be logged into the system. **2.** Keep dummy patient registered into system and its unique ID available at the time of testing.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section that related to managing registered patients. **Step 2.** Try to initiate a new request for the dummy patient such as a pharmacy order or diagnostic test, using the unique patient identifier. **Step 3.** Verify that demographic details and medical history are automatically populated based on the entered unique patient identifier. **Step 4.** Check and confirm auto-populated details are matching with dummy patient.	**1.** The system successfully auto-populates demographic details and medical history based on the entered unique patient identifier	Select Yes/No

AAC.1. The system manages patient registration and referral processes.	
AAC.1.j. The system manages patient referrals across different specialties.	
Test Case . Verify the functionality of the system for the patient referral process with other specialists or specialties.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider or medical practitioner is logged in to the system using valid login credentials.	Manual
Pre-requisite for test	**Test Validation**
2. Keep dummy patient record available in the system.	

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section that manages patients referral. **Step 2.** Select a dummy patient from the patient list who requires a referral to a specialist or specialty. **Step 3.** Initiate a new referral request for the dummy patient. **Step 4.** Choose the specialist or specialty to whom the dummy patient is being referred. **Step 5.** Verify that the system provides a list of available specialists. **Step 6.** Enter referral details, including the reason for referral, relevant medical history, any specific instructions or notes for the specialist and level of urgency. **Step 7.** Verify that the system allows attaching relevant patient records (e.g., medical history, test results) to the referral request to provide the specialist with comprehensive information. **Step 8.** Confirm that the referral request summary is displayed for review, including all entered details and attached records, and prompts for confirmation before submission. **Step 9.** Submit the referral request and check that the system sends the referral request to the selected specialist or specialty through secure channels, such as email or direct integration with their system. **Step 10.** Log in to the system as the specialist or specialty to whom the patient is referred. **Step 11.** Navigate to the section to view the referred patient **Step 12.** View the referred patient details **Step 13.** Confirm that the receiving specialist or specialty acknowledges the referral and receives all attached patient records. **Step 14.** Check and confirm that the system updates the patient's record with the referral details.	**1.** The system enables patient referrals to specialists. **2.** Referral details are submitted successfully to the selected recipient, including attached documents or notes. **3.** System is capable of updating patient records with referral details.	Select Yes/No

AAC.2. The system supports patient appointments and the medical practitioner schedules.		
AAC.2.a. The system creates and manages patient appointments which is visible to staff members		
Test Case . Verify that the system creates, modifies or cancels patient appointments for various types such as physical visits and teleconsultation, capturing all relevant patient information.		
Pre-requisite for test	**Test Validation**	
1. 1.Healthcare provider is logged in to the system using valid login credentials. 2. Keep a dummy patient data record in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Scenario 1: **Step 1.** Navigate to the section that manages appointments. **Step 2.** Select the option to create a new appointment. **Step 3.** Choose the appointment type for dummy patient. **Step 4.** Enter dummy patient details, including unique patient identifier, name, and contact information. **Step 5.** Specify appointment details, including date, time, department or specialty, and the healthcare provider as applicable. **Step 6.** Attach any relevant documents or notes required for the appointment (e.g., referral information, medical history). **Step 7.** Confirm and save the appointment, ensuring that the system generates a unique appointment ID and provides a summary of the appointment details. **Step 8.** Check and confirm that the appointment is accurately reflected in the patient's record and in the healthcare provider's schedule.	1. The system allows patients / healthcare provider to book, modify and cancel appointments. 2. The system captures all relevant information and updates the patient/s record and provider's schedule when appointments are created or canceled.	Select Yes/No
Scenario 2: **Step 1.** Navigate to the section that manages appointments and search for the newly created appointment using the appointment ID or patient information. **Step 2.** Select the appointment for modification.		

Step 3. Make necessary changes to the appointment details, such as rescheduling the date or time, changing the appointment type, or updating patient or provider information. **Step 4.** Check and confirm the modifications and save the updated appointment. **Step 5.** Verify that the changes are accurately reflected in both the patient's record and the provider's schedule. **Step 6.** Now initiate the process to cancel the modified appointment by searching for that appointment using the appointment ID or patient information. **Step 7.** Select the option to cancel the appointment. **Step 8.** Provide a reason for the cancellation, if required, and confirm the cancellation request. **Step 9.** Verify that the appointment is removed from both the patient's record and the provider's schedule.		

AAC.2. The system supports patient appointments and the medical practitioner schedules.		
AAC.2.b. The system has the capability to record timestamps.		
Test Case . Verify the system captures time stamps accurately for different patient touchpoints like patient registration, billing, laboratory report generation, etc.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. **2.** Keep dummy patient record available in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section that related to managing OPD visit. **Step 2.** Select dummy patient and simulate a patient check-in at the OPD using the system. **Step 3.** Initiate the consultation for the dummy patient. **Step 4.** Enter any necessary bills for tests conducted during the OPD appointment and initiate the patient check-out process. **Step 5.** Verify that the time stamps are captured for each process along with the start and end times of the consultation.	**1.** The system accurately captures time stamps for events in both OPD and Daycare scenarios.	Select Yes/No

Step 6. Check and confirm that the time stamp is correctly reflected in the patient's OPD visit record.		

AAC.2. The system supports patient appointments and the medical practitioner schedules.		
AAC.2.c. The system has the capability of queue management for various healthcare services.		
Test Case . Verify the queue management capability of the system.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. **2.** Queue management system, and display board should be available and integrated in the system. **3.** Patient notification settings are configured.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the queue management section. **Step 2.** Check that the system can assign digital tokens or tickets to patients upon arrival to track their position in the queue to monitor and manage patient flow efficiently. **Step 3.** Simulate a scenario where multiple patients check-in through various ways such as scheduled visits, walk-ins, and revisits,etc. **Step 4.** Check that each patient is assigned a digital token or ticket to track their position in the queue **Step 5.** Confirm that the queue management system allows healthcare organization staff to monitor and control patient flow effectively including viewing the current status of the queue and managing patient wait times. **Step 6.** Verify that the system displays the estimated waiting time to the patient upon registration or joining the queue for the appointment/service. **Step 7.** Verify that the system notifies the patients informing them about the estimated wait time. **Step 8.** Validate that patients receive notifications containing information about the estimated wait time. **Step 9.** Trigger the completion/cancellation of an appointment of the previous patient and confirm that the displayed waiting time is updated in real-time based on the current queue status and appointment schedules.	**1.** The queue management system accurately reflects the order of patients waiting for appointments. **2.** All the relevant information about the token, expected waiting time, and queue number is displayed. **3.** All the patient information is synchronized.	Select Yes/No

AAC.2. The system supports patient appointments and the medical practitioner schedules.

AAC.2.d. The system maintains a follow-up management feature to schedule, track, and manage patient follow-up visits.

Test Case . Verify that the system can generate a concise overview of a schedule, track, and manage patient follow-up visits.

Pre-requisite for test	Test Validation
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. **2.** A healthcare provider with authorization to access and manage patient records. **3.** Dummy patient records are created in the system, and all the relevant information should be available. **4.** Historical data, including medical history, current symptoms, and previous diagnoses, is available in the system for the dummy patient. **5.** Follow-up visit of a dummy patient is already scheduled and saved in the system. **6.** Follow-up adherence, generate alerts for missed appointments in the system for the dummy patient.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Schedule a follow-up visit for the patient, specifying the date, time, and department. **Step 2.** Verify that the follow-up visit is accurately scheduled by checking the appointment calendar and patient record. **Step 3.** Verify that if a follow-up visit is missed, the system displays an alert notifying the user of the missed appointment.	**1.** The system accurately provides a concise overview of the follow-up visit for the patient.	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.

AAC.3.a. The system assigns a unique specimen identifier to every sample collected and links it to the patient's unique identifier.

Test Case . Verify that system generates unique specimen identifier for samples collected/ received and links them to their unique patients identifier.

Pre-requisite for test	Test Validation
1. Healthcare staff members with appropriate permissions are logged in to their accounts.	Manual

2. A sample record (blood, urine, etc.) should be available for testing purpose. **3.** Labeling mechanisms (if applicable) such as barcodes or label printing, are integrated within the system and configured for use.		
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section dedicated to Laboratory management. **Step 2.** Access the functionality to create a new specimen entry for collected or received samples for a dummy patient. **Step 3.** Collect or receive a sample and enter the relevant details into the system, such as sample type, collection date, and time. **Step 4.** Verify that the system automatically generates a unique specimen number for each sample collected or received. **Step 5.** Ensure that the generated specimen number is displayed prominently on the specimen detail screen. **Step 6.** Link the specimen number to the patient's unique identifier by selecting or entering the patient's details in the system, if not already linked. **Step 7.** Check and confirm that the specimen number is correctly associated with the unique patient identifier. **Step 8.** Access the patient's record to confirm that the specimen number is visible and linked under the patient's profile. **Step 9.** Review the specimen management section to ensure that the generated specimen numbers are unique and follow the system's set format.	**1.** System generates and assigns unique patient identifier to the samples. **2.** System links unique identifier of the sample to the patient's unique identifier accurately.	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.	
AAC.3.b. The system clearly marks the damaged/ rejected samples.	
Test Case . Verify that the system calls out or labels certain samples as damaged or spoiled, ensuring they are not used for further testing.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider with authorization to access laboratory test management should be logged into the system.	Manual

2. The sample management module or functionality is accessible within the system. 3. System should have alert settings enabled for laboratory section		
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section related to specimen management. **Step 2.** Access the functionality to create a new specimen entry for collected or received samples. **Step 3.** Select the dummy sample that needs to be labeled. **Step 4.** Collect or receive a sample and enter the relevant details into the system, such as sample type, collection date, and patient information. **Step 5.** Simulate scenarios where samples are damaged or spoiled (e.g., through improper handling or storage). **Step 6.** Access the sample entry or management screen and mark the affected samples as "damaged" or "spoiled." and enter remark/ reason for damaged sample. **Step 7.** Verify that the system allows for the designation of the sample status and that the status is clearly labeled as "damaged" or "spoiled."	1. System is capable of marking a sample as damaged or spoiled, along with a remark or reason for it. 2. System updates the status of sample as specified.	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.	
AAC.3.c. The system displays the reference range for a test and highlights abnormal results	
Test Case . Verify that the system displays the normal range for a test and highlights abnormal/out of range results.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider with authorization to access laboratory test management should be logged into the system. 2. Normal and abnormal ranges for tests should be defined in the system. 3. Keep a dummy patient record available for use to whom a laboratory test order has been assigned.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section with functionalities related to managing laboratory test orders. **Step 2.** Select a dummy patient record that includes test results. **Step 3.** Verify that the system displays the normal range for each test next to the corresponding result. **Step 4.** Enter or review test results that are within the normal range. **Step 5.** Check and confirm that the system displays these results without any special highlighting or alerts. **Step 6.** Create a scenario where the test result/value falls within the abnormal range. **Step 7.** Confirm that the system highlights these out-of-range results (e.g., with color, bold text, or an alert symbol). **Step 8.** Check that the highlighted abnormal results are easily distinguishable from the normal results.	**1.** The system displays reference ranges for laboratory tests. **2.** The system prominently highlights abnormal test results, making them easily identifiable within the test report.	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.

AAC.3.d. The system converts measurement units of lab diagnostic results to other measurement units.

Test Case . Verify that the system accurately converts lab data between different standard units of measurement.

Pre-requisite for test	Test Validation
1. Healthcare provider with authorization to access laboratory test management should be logged into the system. **2.** An updated database of commonly used units and their conversion factors must be defined in the system. **3.** Keep dummy laboratory test records in various units available for use.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the laboratory result management section. **Step 2.** Select a dummy laboratory test eg. Blood or glucose, and enter the test result value in a unit different from the clinic's desired unit system (e.g., enter 5.5 mmol/L when the default is mg/dL).	**1.** System accurately converts lab data to the desired various unit.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 3. Save the lab test result. **Step 4.** Check that the system provides an option to convert the lab data to the desired unit. **Step 5.** Select the option to convert the data to desired unit and verify that the lab test report now contains data in the the desired unit. **Step 6.** Verify the accuracy of conversions by cross-checking that the converted value is correct.		

AAC.3. The system handles laboratory and radiology test orders and samples.		
AAC.3.e. The system links the laboratory reports of the patients to their ABHA		
Test Case . Verification by External Certification		
Pre-requisite for test	**Test Validation**	
	External Certification	
Steps to produce	**Expected Outcome**	**Note/Deviation**
	Confirmation of ABDM Certification	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.	
AAC.3.f. The system identifies tests that have been referred to external laboratories and maintains the records of the results.	
Test Case . Verify that the system identifies tests referred to external labs and maintains records of the results.	
Pre-requisite for test	**Test Validation**
1. External laboratory information and contact details are accurately recorded and accessible within the system. 2. Keep dummy patient records to whom laboratory tests have been assigned available in the system. 3. Keep specimen data linked to the dummy patient records available in the system. 4. All the necessary information for the specimen that needs to be sent to the external laboratory is available such as test ID, and sample collection date, test name, etc. 5. Log in to the system as laboratory staff.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the patient's test ordering screen. **Step 2.** Select a dummy test to be referred to an external laboratory. **Step 3.** Verify that the system provides an option to mark the test as referred to an external lab. **Step 4.** Generate a sample collection label for the selected test. **Step 5.** Verify that the label clearly indicates that the sample is for an external lab, including details like test name, patient ID, and external lab info. **Step 6.** Enter the referral lab's details, including the lab name, contact details, and expected test turnaround time. **Step 7.** Confirm that the system allows and stores this information accurately. **Step 8.** Navigate to the section dedicated to referred tests in the system. **Step 9.** Verify that the system lists marks the referred tests distinctly with a status indicating the sample has been sent to the external lab. **Step 10.** After receiving results from the external lab, initiate the process of enetering the results into the system by either entering it manually or uploading the test report in the system. **Step 11.** Verify that the status of test is marked as received from an external lab and is distinguishable from internal test results. **Step 12.** Ensure the result is digitally stored in the patient's record. **Step 13.** Access the patient's test history. **Step 14.** Verify that referred tests are identifiable and distinguishable from in-house tests. **Step 15.** Ensure that all records for the referred test, including referral details and results, are accessible. **Step 16.** Verify that all actions related to the referred test (order, referral, results entry) are logged in the system's audit trail for tracking and compliance purposes.	**1.** The system accurately records all relevant details of test orders sent to external laboratories along with their test results. **2.** Any activities related to the test requisitions or orders are logged accurately and comprehensively. **3.** Records of tests sent to external laboratories can be retrieved easily for reference.	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.		
AAC.3.g. The system creates/ modifies a new radiology request, generates a unique ID for the request, and link it to the patient's unique ID.		
Test Case . Verify that the system creates and modifies a new radiology request, generates a unique ID for it and links it to patient's unique ID.		
Pre-requisite for test	**Test Validation**	
1. Healthcare staff with authorization to manage radiology requests should be logged into the system. **2.** Digital unique identification mechanisms for radiological tests or procedures are configured and integrated with the system. **3.** Keep a dummy patient record available in the system	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the radiology request management section of the system. **Step 2.** Initiate the process to create a new radiology request for a dummy patient. **Step 3.** Enter the necessary details for the new radiology request, including patient information, test type, and any additional notes **Step 4.** Verify that the system generates a unique ID for the new radiology request. **Step 5.** Check and confirm that the unique ID is displayed and saved in the radiology request details. **Step 6.** Check that the new radiology request is linked to the patient's unique ID. **Step 7.** Save the new radiology request and verify that it is correctly associated with the patient's unique ID. **Step 8.** Modify the existing radiology request by updating details such as test type, notes, or other relevant information. **Step 9.** Verify that the system retains the unique ID of the radiology request after modification.	**1.** System creates/modifies radiology test request, generates unique ID for the same and links it with the patient's unique ID.	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.
AAC.3.h. The system sends notifications to the radiology department as soon as any test is booked.

Test Case . Verify that the system calls out or labels certain samples as damaged or spoiled, ensuring they are not used for further testing.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider with authorization to manage notifications and access radiology department functionalities should be logged into the system. **2.** Radiology department contact information and notification preferences are accurately recorded and accessible within the system. **3.** Keep a dummy patient record available in the system	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section where radiology tests are booked for OPD or DayCare patients. **Step 2.** Book a new radiology test for a dummy patient, either in the outpatient department (OPD) or DayCare, and complete the booking process. **Step 3.** Verify that the system triggers a notification to the radiology department upon booking the test. **Step 4.** Check and confirm that the notification includes relevant details such as patient name, patient ID, test type, test date, and any additional instructions or notes.	**1.** The system sends notifications to the radiology department upon test booking in OPD or DayCare. **2.** Notifications include relevant patient and test details, such as patient identification, test type, and booking details.	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.		
AAC.3.i. The system captures and shows the radiological test status for every radiology test order.		
Test Case . Verify that the system displays the status of radiological tests/examinations, including various statuses such as booked, ongoing, completed, reported, etc.		
Pre-requisite for test	**Test Validation**	
1. Healthcare staff with authorization to access test/examination statuses should be logged into the system. **2.** Multiple dummy patient test records with all possible statuses (booked, ongoing, completed, reported etc.) should be available in the system at the time testing.	Manual	

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the radiology test management section of the system. **Step 2.** Access the list of radiological tests or examinations. **Step 3.** Verify that each test or examination has a visible status indicator. **Step 4.** Check and confirm that the system displays the following statuses i.e. booked, ongoing, completed, reported. **Step 5.** Choose a sample test with the status (booked, ongoing, completed, reported) and update the test status. **Step 6.** Verify that the displayed status corresponds to the new state of the sample radiological tests/examinations **Step 7.** Ensure that the highlighted abnormal results are easily distinguishable from the normal results.	**1.** The system provides options to view the status of tests/examinations within the designated module or section with various status options such as booked, ongoing, completed, and reported, etc.	Select Yes/No

AAC.3. The system handles laboratory and radiology test orders and samples.

AAC.3.j. The system generates a non-editable final report once it is signed by the pathologist/ radiologist

Test Case . Verify that the system successfully generates finalized lab / radiology reports signed by the pathologist / radiologist and ensures that these reports are not editable after finalization.

Pre-requisite for test	Test Validation
1. Healthcare provider with permission to finalize and generate radiology reports should be logged in to the system. **2.** Create a dummy patient record linked with a lab / radiology reports.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the lab / radiology report management section of the system. **Step 2.** Access a completed lab / radiology test or examination that requires finalization for a dummy patient. **Step 3.** Verify that there is an option to finalize the lab / radiology report and sign it.	**1.** The system successfully generates finalized lab / radiology reports with the pathologist / radiologist's signature appended.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 4. Generate the finalized lab / radiology report and ensure it includes a digital signature or other indication of pathologist / radiologist approval. **Step 5.** Save the finalized report and confirm that it is marked as "Finalized" or similar status in the system. **Step 6.** Attempt to edit the finalized reports and verify that the system prevents any modifications. **Step 7.** Check and confirm that the finalized report is viewable but locked from further editing or changes **Step 8.** Check that the system maintains a record of the finalization, including the date and time of finalization and the pathologist / radiologist's signature.	**2.** Finalized reports are locked and not editable after the finalization process, ensuring data integrity and compliance with regulatory requirements. **3.** The system should not allow the generation of the finalized report without the pathologist / radiologist's signature.	Select Yes/No

AAC.4. The system supports patient admissions in daycare facilities.	
AAC.4.a The system sets operational rules and workflows for patients during daycare procedures and admissions.	
Test Case . Verify that the system configures different rules/workflows for each patient daycare admission type.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider with authorization to manage patient admission should be logged into the system. **2.** Dummy patient detail must be available in the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the patient admission workflow configuration section of the system. **Step 2.** Access the settings or configuration options for defining admission rules and workflows. **Step 3.** Identify and select the different types of patient admissions, e.g., daycare admissions like full-day care, half-day or part-time care, and specialized programs, etc.) **Step 4.** Configure specific rules and workflows for each admission type. e.g. Daycare Admission. Configure workflows for room allocation, ongoing care, and discharge planning.	**1.** The system allows users to configure different rules for each type of admission. **2.** Users can define criteria such as required documents, workflow steps, etc.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 5. Save the configured rules and workflows for admission type. **Step 6.** Check the system by creating patient Daycare admissions and verify that the appropriate workflows and rules are applied. **Step 7.** Verify that Daycare admission workflow includes all relevant steps, notifications, and actions specific to the admission type. **Step 8.** Ensure that the system allows for modifications and updates to the rules and workflows as needed. **Step 9.** Check and confirm that all workflows and rules are consistently applied across different patient Daycare admissions and accurately reflect the configured settings.	**3.** Configured rules are saved successfully and applied when processing admission.	

AAC.4. The system supports patient admissions in daycare facilities.	
AAC.4.b. The system identifies the patient's primary treating medical practitioner for all Daycare admissions.	
Test Case . Verify that the system designates treating medical practitioners along with the supporting team for the patient, and displays this information accurately for all day care admissions.	
Pre-requisite for test	**Test Validation**
1. Healthcare providers with permission to manage patient information and configure medical practitioner assignments should be logged into the system. **2.** User roles with permissions to view patient information and configure medical practitioner assignments are defined within the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section related to designating medical practitioners to a patient. **Step 2.** Identify the section or fields for assigning the primary treating medical practitioner. **Step 3.** Assign a primary treating medical practitioner to the patient by selecting from the list of available practitioners. **Step 4.** Save the assignment and verify that the designated treating medical practitioner is accurately displayed in the patient's record.	**1.** The system allows the designation of treating medical practitioner for the patient. **2.** Medical practitioner is able to view all the record of dummy patient.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 5. Generate a few test reports for the dummy patient and assign some tests to the patient. **Step 6.** Log in to the portal as the assigned medical practitioner and verify that all patient records are visible to the doctor.		

AAC.5. The system facilitates dissemination of information to patients.		
AAC.5.a. The system provides important care delivery information to patients.		
Test Case . Verify that the system effectively disseminates important information to patients.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider or administrative staff is logged in to the system by using valid login credentials. 2. Dummy information to be disseminated to patients is available within the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section or module where clinic information is provided. **Step 2.** Verify that the system provides options to disseminate important information to patients, such as medical test results, appointment reminders, important updates, or alerts. **Step 3.** Select a dummy patient or group of patients to receive the information. **Step 4.** Choose the type of important information to be disseminated and enter relevant content. **Step 5.** Initiate the process to disseminate the information. **Step 6.** Verify that the system sends the information to the intended patients through the selected communication channels.	1. The system displays the important care delivery information clearly.	Select Yes/No

AAC.6. The system manages patient feedback and complaints.
AAC.6.a. The system has the capability to capture feedback and complaints from the patients/family members.
Test Case . Verify that the system has the capability to receive feedback and complaints from patients/family members and records the data accurately.

Pre-requisite for test	Test Validation
1. Patient feedback collection mechanisms through various applicable channels such as SMS/WhatsApp are integrated and operational. 2. The patient or family member is registered in the system with valid contact details (e.g., mobile number, email). 3. The system has pre-configured patient satisfaction survey forms. 4. Log-in credentials for patients and healthcare staff should be available at the time of testing.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Log in to the system as a patient or family member through the patient portal. **Step 2.** Navigate to the feedback/surveys section. **Step 3.** Check that the system provides an option to fill out a patient feedback/ survey or submit a complaint. **Step 4.** Select the "Patient Satisfaction Survey" option. **Step 5.** Verify that the system presents a survey form containing at least the following questions. (a). How would you rate your overall experience at the hospital? (b). How would you rate the quality of care, including doctor consultation, nursing care, etc.? (c). How would you rate the healthcare staff's communication and explanation of the treatment plan? (d). How would you rate the hospital environment, including cleanliness and amenities? (e). How would you rate the ease of registration/discharge processes? **Step 6.** Rate each question on a 5-point scale. **Step 7.** Submit the survey. **Step 8.** Verify that the system confirms the submission of the feedback and generates a rating analysis. **Step 9.** Log in to the system as an administrator or support staff.	**1.** The system allows patients or family members to submit feedback via a structured satisfaction survey or to file a complaint. **2.** Feedback surveys contain the required questions, are rated on a 5-point scale, and produce rating analysis. **3.** Complaints are logged with a unique reference number, and the resolution process is tracked within the system. **4.** The system allows sharing of the feedback form via SMS, email, or online messaging platforms. **5.** The system confirms the successful submission of surveys and complaints.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 10. Navigate to the feedback management dashboard. **Step 11.** Verify that the submitted feedback is logged and visible in the system. **Step 12.** Check that the feedback includes the 5-point rating scale analysis for each question. **Step 15.** Verify that the system confirms the receipt of the complaint and generates a unique reference number. **Step 16.** Check that the system sends an SMS, email, or link (URL or QR code) to the patient's registered mobile number or email with a link to the feedback form. **Step 17.** Access the feedback form through the link received and complete the survey. **Step 18.** Log in to the system as support staff and track the complaint resolution process. **Step 19.** Verify that the complaint resolution details (including status and outcome) are logged in the system. **Step 20.** Ensure that the system sends notifications to the patient regarding the resolution of their complaint.	**6.** Notifications about complaint resolution are sent to patients, and feedback records are stored securely.	

CHAPTER 2

Continuity of Care (COP)

COP.1. The system manages OPD consultation services.		
COP.1.a. The system allows capture and reviewing of the initial patient assessment.		
Test Case. Verify that the system can capture initial assessment of patients and medical practitioner can review the initial assessment.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider authorized to capture the initial assessment should be logged into the system. 2. Login credential of medical practitioners should be available. 3. Keep dummy patient data ready for testing the initial assessment details of patients.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section that manages the initial patient assessment. **Step 2.** Search for a dummy patient record in OPD and select dummy patient. **Step 3.** Capture the initial assessment by filling in the required fields such as vital signs, medical history, physical examination findings, and available diagnostic test results. **Step 4.** Save the assessment and confirm that the system displays a successful submission notification. **Step 5.** Log into the system as a medical practitioner. **Step 6.** Retrieve the dummy patient record from the system and verify that the medical practitioner can view the initial assessment. **Step 7.** Check and confirm that all displayed details are correct as per the entered data.	1. The system successfully captures the initial assessment for patients. 2. Medical practitioner can retrieve and review the assessments.	Select Yes/No

COP.1. The system manages OPD consultation services.		
COP.1.b. The system allows the medical practitioner to access and view patient's previous consultation / medical records.		
Test Case. Verify that the system allows treating medical practitioners to access and view a patient's previous consultation records and summaries within the clinic.		
Pre-requisite for test	**Test Validation**	
1. A healthcare provider (medical practitioner or nurse) who is authorized to access a dummy patient's historical consultation records and summaries logged in to the system using valid login credentials. **2.** Keep a dummy patient record available for testing, along with some previously saved medical records in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Search for a dummy patient record by using key identifiers such as patient name, mobile number, UHID, or ABHA. **Step 2.** Select a dummy patient from the search result. **Step 3.** Access the section to view the previous consultation records and summaries **Step 4.** Review both past and most recent consultation records and summaries. **Step 5.** Check and confirm that all the patient's previous consultation records and summaries are accurately displayed and accessible.	**1.** The system allows access to patient's previous consultation records and summaries for medical practitioners. 2. Patient's previous consultation records and summaries can be retrieved accurately using key identifiers such as the Patient's name, Gender, Age, Date of birth, address, mobile number, and any registered National ID (like ABHA, Aadhaar, driving license). **3.** Medical practitioners can review the comprehensive medical records of the patient.	Select Yes/No

COP.1. The system manages OPD consultation services.		
COP.1.c. The system has the capability for Computerized Provider Order Entry (CPOE) of laboratory and radiology tests.		
Test Case. Verify that the system allows medical practitioners to place laboratory and radiology tests and integrates seamlessly with patient records for accurate and up-to-date information.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider with authorization to place laboratory and radiology tests should be logged into the system. **2.** Dummy patient records should be available in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the laboratory test section. **Step 2.** Access the laboratory tests section from the dashboard. **Step 3.** Select the option to place a new laboratory test for a dummy patient. **Step 4.** Choose the appropriate laboratory tests and fill in the required details. **Step 5.** Submit the laboratory tests order. **Step 6.** Verify that the laboratory order is reflected in the patient record. **Step 7.** Check that the order details, including test types and submission dates, are accurately displayed. **Step 8.** Check and confirm that the order status updates in real-time as it progresses through the system. **Step 9.** Review integration with other system modules to ensure that the laboratory tests order information is consistent across the patient record. **Step 10.** Repeat step 1 to 9 for radiology test. **Step 11.** Check whether the CMS company has an in-house diagnostic lab, and confirm that the system is capable of electronically sending order requests for laboratory and radiology tests (if applicable).	**1.** Medical practitioners can choose from a comprehensive catalog of available laboratory and radiology tests. **2.** Medical practitioners can assign laboratory and radiology tests to the patient. **3.** Laboratory and radiology tests are seamlessly linked with the patient's record. **4.** Submitted laboratory and radiology test orders are successfully received by the respective departments. **5.** The system is capable of sending orders electronically, provided the CMS company has an in-house diagnostic lab.(If applicable)	Select Yes/No

COP.1. The system manages OPD consultation services.		
COP.1.d. The system has the capability to generate e-prescription or Computerized Provider Order Entry for medicines.		
Test Case. Verify that the system allows medical practitioners to prescribe medication orders to the patient.		
Pre-requisite for test	**Test Validation**	
1. Keep a dummy patient record available in the system and schedule an appointment for a consultation. **2.** Keep a dummy patient record available in the system and schedule an appointment for a consultation.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the OPD module. **Step 2.** Access the "Medication Prescriptions" section from the dashboard. **Step 3.** Select the option to create a new prescription for a dummy patient. **Step 4.** Enter the medication details, including drug name, dosage, and instructions. **Step 5.** Submit the prescription for dummy patient into the system. **Step 6.** Check that the prescription appears in the dummy patient's record. **Step 7.** Check that the medication details, including dosage and instructions, are accurately displayed. **Step 8.** Check and confirm that the system provides confirmation of the prescription submission and updates the order status.	**1.** Medical practitioner can successfully prescribe medication to patient. **2.** Prescriptions are accurately captured and stored within the patient's record, ensuring completeness and accessibility.	Select Yes/No

COP.1. The system manages OPD consultation services.	
COP.1.e. The system creates order sets based on frequently prescribed medications.	
Test Case. Verify that the medical practitioners can view commonly prescribed medications and are able to create order sets and allow them to modify it.	
Pre-requisite for test	**Test Validation**
1. The medical practitioner with authorization to view medication databases and create order sets should be logged into the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the Medications module or Order Entry section. **Step 2.** Select the dummy patient and initiate the prescription process. **Step 3.** Check the list of commonly prescribed medications. **Step 4.** Select a medication from the list and verify that the system displays detailed information, including medication name, dosage form, strength, indications, contraindications, potential side effects, and categorization. **Step 5.** Confirm that the list includes commonly used medications by cross-checking with real-time information. **Step 6.** Select medications from the list to create a new order set. **Step 7.** Choose medications from the system to include in the custom order set. **Step 8.** Modify the order set by adding or removing medications or adjusting content such as dosages and frequencies based on individual patient needs. **Step 9.** Save the modified order set and verify that the changes are accurately reflected in the system.	**1.** The system displays a comprehensive list of commonly prescribed medications with detailed information. **2.** Medical practitioners can create, edit and personalize order sets using pre-established templates based on individual patient needs.	Select Yes/No

COP.1. The system manages OPD consultation services.	
COP.1.f. The system has an authorisation mechanism for prescription of certain medications to designated medical practitioners only.	
Test Case. Verify that the system restricts the prescription of certain medications to designated medical practitioners only.	
Pre-requisite for test	**Test Validation**
1. Medical practitioners logged in to the system using valid login credentials. **2.** Keep a dummy patient record available in the system and schedule an appointment for a consultation. **3.** A configurable list of restricted medications must be available in the system **4.** Prescription rights must be assigned to designated medical practitioners.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section where we configure list of medicine or prescription. **Step 2.** Go to the configuration settings and set-up RBAC, add the list of restricted medications, and give prescription rights to the right medical practitioners. **Step 3.** Select the option to create a new prescription to prescribe a medication listed as restricted (For Example. High-risk medications, Narcotics, Cancer Medications, etc). **Step 4.** Enter the medication details, including drug name, dosage, and instructions for a specific medication that can be prescribed only by a designated medical practitioner. **Step 5.** Attempt to submit the prescription and verify that the system approve the request with a proper notification. **Step 6.** Submit the prescription and verify that the prescription appears in the dummy patient's record **Step 7.** Log in using the credentials of a medical practitioner without rights and attempt to send a prescription request for approval. **Step 8.** Check that the system doesn't approve request and shows proper error/alert to the medical practitioner.	**1.** The relevant medications can only be prescribed by a designated medical practitioner. **2.** The system displays a comprehensive list of prescribed medications (High Risk,High-risk medications, Narcotics, Cancer Medications) with detailed information. **3.** System blocks the prescription attempt by the unauthorized practitioner. **4.** System allows the authorized practitioner to prescribe the restricted medication successfully.	Select Yes/No

COP.1. The system manages OPD consultation services.	
COP.1.g. The system notifies medical practitioners while placing duplicate orders.	
Test Case. Verify that the system notifies medical practitioners while placing duplicate orders	
Pre-requisite for test	**Test Validation**
1. Medical practitioners logged in to the system using valid login credentials. **2.** Keep a dummy patient record available in the system including previous prescribed medications or tests order. **3.** The system must have a configurable duplicate detection logic implemented and active.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to section which is related to tests or medications order **Step 2.** Select the option to create a new prescription or test order for a dummy patient. **Step 3.** Enter prescribed medications or tests order that already exist in the selected dummy patient's medical record. **Step 4.** System triggers a notification when a duplicate order is placed and generates a summary of prescribed medication or test orders for review. **Step 5.** Check and confirm that the system shows a notification when a duplicate order is placed.	**1.** System identifies the duplicate order based on patient's order history **2.** System shows a message to alert the practitioner when the same order is placed again. **3.** System should be able to generate a summary of prescribed medication or test orders for review	Select Yes/No

COP.1. The system manages OPD consultation services.	
COP.1.h. The system maintains records of medical devices.	
Test Case. Verify that the system captures and maintains a record of medical devices.	
Pre-requisite for test	**Test Validation**
1. Healthcare providers with authorized access to inventory management should be logged into the system **2.** Keep a dummy patient available in the system which is used for medical device implantation. **3.** Medical device details are available for entry (e.g., batch number, serial number, type, manufacturer, expiration date etc.)	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the medical record section **Step 2.** Select a dummy patient from the medical record section **Step 3.** Initiate the process of entering medical device details, including batch number, serial number, type, manufacturer, expiration date, device identifier and other relevant information. **Step 4.** Save the medical device details to the system **Step 5.** Retrieve the dummy patient record from the system by using patients identifier	**1.** Healthcare providers are able to enter into details of medical devices **2.** System accurately saves medical device details and correctly associates them with the corresponding patient identifier	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 6. Check and confirm that the entered details are correctly displayed in the dummy patient's medical record.	**3.** Saved information is visible in the patient record and can be retrieved for tracking or recall.	

COP.1. The system manages OPD consultation services.		
COP.1.i. The system generates the OPD consultation /visit summary.		
Test Case Verify that the system allows medical practitioners to generates the OPD consultation / visit summary to the patient.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioner should be logged into the system. **2.** Keep a dummy patient information available at the time of testing.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section that creates OPD consultation note / visit summary and prescriptions to the patient. **Step 2.** Select the option to create a new OPD consultation / visit summary for a dummy patient. **Step 3.** Enter the relevant details such as dummy patient's Name, Age, Gender, Unique ID, Date & time of visit, Name of consulting medical practitioner & department, Presenting complaints & clinical findings, Diagnosis (Provisional and/or Final),Treatment advised (including prescriptions, procedures, lifestyle changes etc.),Investigations ordered, Follow-up instructions and referrals, Electronic signature/authentication by the medical practitioner. **Step 4.** Submit the OPD consultation or visit summary for a dummy patient, including all the entered details. **Step 5.** Check that the OPD consultation note / visit summary appears in the dummy patient's record.	**1.** The system generates the OPD consultation / visit summary to the patient. **2.** Details are accurately captured and stored within the patient's record, ensuring completeness and accessibility. **3.** Medical practitioner can view summary of patient.	Select Yes/No

COP.1. The system manages OPD consultation services.		
COP.1.j. The system has the capability to capture the digital signature of treating medical practitioners.		
Test Case. Verify that the system accurately captures digital signatures of medical practitioners on patient record.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioners or administrative staff with authorization to sign patient record are logged in to the system using valid login credentials. **2.** Digital signature methods such as biometric authentication, OTP, and digital signature keys are properly configured and available within the system. **3.** Keep dummy patient records available in the system which needs to be signed such as prescriptions, OPD consultation summaries and discharge summaries (for daycare clinics).	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the patient record section from the dashboard. **Step 2.** Select a dummy patient record that requires a digital signature. **Step 3.** Initiate the signature process by using one of the available mechanisms to digitally sign on the patient record (For Example, biometric authentication, one-time password (OTP) generated digital signatures, or digital signature keys). **Step 4.** Capture the digital signature using the provided interface. **Step 5.** Submit the digital signature and save the changes to the patient record. **Step 6.** Verify that the digital signature appears accurately on the patient record. **Step 7.** Check and confirm that the signature, timestamp, and medical practitioner's name are accurately recorded in the audit trail or system.	**1.** The system allows authorized medical practitioners to securely capture digital signatures on various patient records. **2.** Digital signature methods (biometric authentication, OTP, digital signature keys, etc.) are available and functioning correctly. **3.** The system is capable of recording a timestamp for the signature and saving it in the audit trail. **4.** A time stamped, geo tagged video showcasing the above functionality may be submitted for validating above objective.	Select Yes/No

COP.1. The system manages OPD consultation services.		
COP.1.k. The system generates multilingual OPD consultation /visit summaries.		
Test Case. Verify that the system can generate a summary of the patient's health from their consultation and visit summaries in more than one language.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioners are logged in to the system using valid login credentials. **2.** Dummy patient records are created in the system and all the relevant information should be available.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section related to creating consultation or visit summaries for patients. **Step 2.** Select a dummy patient from the system. **Step 3.** Generate and review a concise summary of the patient's health condition, including key details such as medical history, current diagnosis, and ongoing treatments. **Step 4.** Verify that the summary is accurate and complete by cross-checking it with the patient's records. **Step 5.** Navigate to the section related to medication prescriptions. **Step 6.** Create, modify, and save prescription for the patient. **Step 7.** Verify that the prescriptions are correctly recorded by reviewing the patient's records. **Step 8.** Select the option to generate the consultation and/or visit summary. **Step 9.** Check that the system provides the option to select preferred language and select one of the available languages other than the default language. **Step 10.** Verify that the summary is generated accurately in the selected language.	**1.** The system accurately provides a concise overview of the patient's health condition, summarizing medical history, symptoms, diagnosis, and examination findings. **2.** The system accurately generates summaries in more than one language.	Select Yes/No

COP.2. The system captures management of patient admission and related processes.
COP.2.a. The system has capability to record necessary details of surgical procedures / interventions undertaken.
Test Case. Verify that the system effectively maintain digital records of surgical procedures and interventions done at the clinic for patients.

Pre-requisite for test	Test Validation
1. Medical practitioners or administrative staff with authorization to access and maintain digital records of surgical procedures and interventions should be logged into the system. 2. Keep a dummy patient record, with a scheduled surgical procedure, is readily available during testing.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section related to maintaining digital records of surgical procedures and interventions. **Step 2.** Select a dummy patient and simulate a scenario involving ongoing surgical procedures and interventions conducted at the clinic **Step 3.** Start the process of capturing the surgical procedure details and interventions such asas the surgical technique employed, the type of anaesthesia administered, the surgical team involved, various resources utilized during surgery, consent and any specimens collected. **Step 4.** Save the procedure details. **Step 5.** Verify that the information is correctly stored and visible in the patient's record. **Step 6.** Check and confirm that that the captured surgical procedure and intervention details are accurate and complete	1. The system maintains digital records for surgical procedures and interventions accurately.	Select Yes/No

COP.2. The system captures management of patient admission and related processes.

COP.2.b. The system captures nursing notes for daycare admissions.

Test Case. Verify that the system allows nurses to create digital nursing notes for patients admitted.

Pre-requisite for test	Test Validation
1. The nurse should have valid system login credentials with appropriate access rights to create nursing notes. 2. A dummy patient record should exist in the system and be marked as admitted to the daycare unit. 3. The nursing notes module should be enabled and accessible in the patient care section.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the Nursing Notes section in the system. **Step 2.** Select the option to create a new nursing note for a dummy patient admitted to day care. **Step 3.** Check the template for nursing notes and create a nursing note for the dummy patient (if applicable). **Step 4.** Enter details into the digital note interface, including. Timestamp of the entry,Patient particulars (e.g., name, ID),Nurse identification information (e.g., nurse's name, ID),Overview of the patient's condition, Clinical findings, Significant events during the shift, Observations regarding the patient's response to care or clinical progression **Step 5.** Save the nursing note. **Step 6.** Check and confirm that the nursing note is accurately recorded and visible in the dummy patient's record. and accessible.	**1.** Nurses can create new nursing notes, documenting essential details about patient care and condition. **2.** Existing nursing notes are accessible to nurses for review	Select Yes/No

COP.2. The system captures management of patient admission and related processes.	
COP.2.c. The system has the capability of maintaining an electronic medication administration record (eMAR).	
Test Case. Verify that the electronic medication administration record (eMAR) system accurately records the administration of drugs using a specific template, capturing dosage, route of administration, date and time, and the administering personnel.	
Pre-requisite for test	**Test Validation**
1. Medical practitioner with authorization to manage the electronic medication administration record (eMAR) system should be logged into the system. **2.** Create a dummy patient medical record in the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Select a dummy patient from the list of patients scheduled for medication administration. **Step 2.** Navigate to the electronic medication administration record (eMAR) module. **Step 3.** Access the medication order for the dummy patient and verify that the system presents a specific template for recording the medication administration.	**1.** The eMAR displays a specific template for recording medication administration details.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 4. Review the template to ensure that it includes fields for capturing the dosage, route of administration, date and time, and the administering personnel. **Step 5.** Administer the prescribed medication to the dummy patient, and enter the relevant details into the template, including the exact dosage, the route of administration (e.g., oral, intravenous), and the date and time of administration. **Step 6.** Retrieve the dummy patient eMAR record from the system. **Step 7.** Check and confirm that the details are accurately recorded and displayed.	**2.** The eMAR maintains a comprehensive and accurate record of all medication administrations for the selected patient.	Select Yes/No

COP.2. The system captures management of patient admission and related processes.		
COP.2.d. The system creates / modifies a discharge summary for patients admitted for day care procedures.		
Test Case. Verify that the system creates or modifies discharge summary report based on predefined NABH templates.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioner or or administrative staff with authorization to manage templates for discharge is logged into the system. **2.** Predefined NABH templates (Annexure C) for discharge summarry report are configured and available within the system. **3.** Keep dummy information required for patient discharge available for testing.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the discharge summary section or patient discharge module of the system. **Step 2.** Verify that the system provides predefined templates for discharge summary report, tailored to different patient conditions or treatment plans. **Step 3.** Select a dummy patient ready for discharge and initiate the creation of a discharge summary.	**1.** System creates and modifies discharge summary based on NABH predefined template (Annexure C).	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 4. Choose a predefined NABH template (Annexure C) that matches the dummy patient's condition or treatment from the available options. **Step 5.** Enter all the relevant patient information, such as patient demographics, medical history, treatment summary, medication prescribed, and follow-up instructions and save it. **Step 6.** Modify the discharge summary report as needed by adding, editing, or removing information within the predefined template. **Step 7.** Verify that the system allows customization of the discharge summary template, such as inserting additional sections (e.g., patient education). **Step 8.** Confirm that all mandatory fields in the template are clearly marked and require completion before finalizing the discharge summary. **Step 9.** Save the discharge summary and verify that the system correctly generates the summary based on the modified template. **Step 10.** Review the generated discharge summary report to ensure that all patient-specific information is accurately reflected.		

COP.3. The system manages medico-legal and emergency cases.	
COP.3.a. The system has the capability to label a medico-legal case (MLC).	
Test Case. Verify that the system assists the clinic in labeling a case as a medico legal case by providing necessary features for collecting and capturing accurate and efficient information using a digital checklist.	
Pre-requisite for test	**Test Validation**
1. Medical practitioner or administrative staff with authorization to access and modify health records should be logged into the system. **2.** A dummy patient with relevant information should be available for testing.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the OPD section. **Step 2.** Select a dummy patient that needs to be marked as MLC.		

Steps to produce	Expected Outcome	Note/Deviation
Step 3. Initiate the process of labeling a case as medico-legal within the system. (Checkbox, radio button, indicator etc.) **Step 4.** Check that the system prompts for necessary information to be collected and recorded for the medico-legal case. **Step 5.** Check that the system provides access to a digital checklist/list to guide the collection of required data. **Step 6.** Use the digital checklist/list provided by the system to collect relevant information for the medico-legal case. **Step 7.** Enter the information as per the checklist/list. **Step 8.** Check that all necessary data fields are available and accessible within the checklist for comprehensive documentation. **Step 9.** Verify that all information collected for the medico-legal case is captured in the clinic's medical record system.	**1.** The system provides functionality to label a case as a medico-legal case (MLC) **2.** Patient records accurately reflect the labeling of cases as medico-legal cases, ensuring comprehensive documentation and appropriate handling of such cases within the clinic.	Select Yes/No

COP.3. The system manages medico-legal and emergency cases.	
COP.3.b. The system records the details of any emergency services given to a patient in the clinic.	
Test Case. Verify system capability to record any emergency service given to patient in the clinic.	
Pre-requisite for test	**Test Validation**
1. Medical practitioner with authorization to provide emergency services should be logged into the system. **2.** Keep dummy patient details available in the system at the time of testing.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the patient management section. **Step 2.** Enter dummy patient details into the system **Step 3.** Search and select an existing dummy patient record. **Step 4.** Access the emergency services section within the patient record. **Step 5.** Enter the type of emergency encountered like any underlying reason(s) or medical conditions, treatment extended, condition of patients at final discharge etc.	**1.** The system allows access to the emergency services section for the selected patient.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 6. Capture the treatment extended during the emergency. **Step 7.** Document the condition of the patient at final discharge in the system and save the record. **Step 8.** Verify that the entered details are correctly saved and retrievable. **Step 9.** Check and confirm that the details are accurately recorded and displayed.	**2.** The system successfully saves the details, which are accurately retrievable and correctly displayed in the patient's record.	

COP.3. The system manages medico-legal and emergency cases.		
COP.3.c. The system maintains records of patient consent.		
Test Case. Verify system functionality for recording patient consent for healthcare activities and procedures.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioner or administrative staff with authorization to record consent of patient should be logged into the system. **2.** Dummy Patient record created in the system. **3.** Consent form templates (including Annexure E) are created / uploaded and configured in the system. 4. Aadhar-based OTP, fingerprint authentication, and document upload modules are integrated and functional. **5.** Legal guardian information is available for minors and patients with disabilities for testing.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the Patient Record section. **Step 2.** Select the dummy patient record for whom consent is to be recorded. **Step 3.** Choose the type of consent to be recorded (e.g., treatment, procedure, data sharing, research participation). **Step 4.** Initiate the consent capture process using any one of the following methods. a. Aadhaar-based OTP verification b. Fingerprint authentication c. Uploading a scanned consent document or any other valid verification method.	**1.** The system allows selection of consent type and initiates the appropriate capture method. **2.** Consent is successfully recorded using Aadhar OTP, fingerprint, or document upload.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 5. Create a scenario where the patient is a minor or has a disability, and verify that the system allows selection of a legal guardian from the patient profile. **Step 6.** Capture the guardian's consent using the same methods as mentioned above. **Step 7.** Submit the consent form and confirm that the system displays a successful submission notification. **Step 8.** Retrieve the dummy patient record and verify that the consent form is accurately linked and properly attached to the patient's file. **Step 9.** Create a scenario where the patient requests to update certain information. **Step 10.** Attempt to modify the patient's information and verify that the system displays an alert or popup requesting patient consent for the modification. **Step 11.** Fill out the consent form, save it in the system, and proceed to update the patient's information. **Step 12.** Retrieve the dummy patient record and verify that the modified information is correctly displayed in the patient record. **Step 13.** Check the consent record in the patient's history to ensure it is correctly logged and timestamped.	For minors or patients with disabilities, the system mandates guardian consent. **3.** The system validates and stores the consent with appropriate metadata (e.g., timestamp, method used). **4.** Patient information updates are allowed only when valid consent is present. **5.** Consent records are visible in the patient's history with clear categorization.	Select Yes/No

COP.4. The system manages dietary consultation and specific nutritional therapy.	
COP.4.a. The system captures dietary screening, manages dietary consultation and maintains records where relevant.	
Test Case. Verify that the system captures dietary screening, manages dietary consultation and maintains records where relevant.	
Pre-requisite for test	**Test Validation**
1. An authorized medical practitioner or administrative staff member with access to the clinical and dietary staff modules should be logged into the system. **2.** Dummy Patient record are created and accessible in the system. **3.** Validated dietary screening and assessment tools are configured in the system.	Manual

4. Diet form templates (including Annexure F) are created or uploaded and available in the system.		
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the patient record section. **Step 2.** Select dummy patient which required dietary screening. **Step 3.** Initiate the dietary screening process using the validated assessment tools available in the system. **Step 4.** Capture the screening results and select appropriate dietary recommendations based on the assessment. **Step 5.** Schedule and conduct a dietary consultation session, documenting all recommendations and observations. **Step 6.** Select or customize a diet plan from the system, including specialized dietary requirements (if applicable). **Step 7.** Upload or generate the diet form using Annexure F template and associate it with the patient record. **Step 8.** Save and verify that all dietary screening, consultation notes, and diet plans are stored in the patient's history. **Step 9.** Check and confirm that the dietary records are accessible to relevant staff and integrated with the patient's clinical data.	**1.** The system allows initiation of dietary screening using assessment tools. **2.** Screening results and dietary recommendations are accurately captured **3.** Dietary consultations are documented and linked to the patient profile. **4.** Specialized dietary requirements are accommodated and reflected in the diet plan. **5.** Diet forms are generated or uploaded and stored in the patient's record.	Select Yes/No

COP.5. The system supports the clinic's antimicrobial usage policy.	
COP.5.a. The system manages the clinic's antimicrobial usage policy.	
Test Case. Verify that the system implements a clearly defined antimicrobial usage policy, available digitally to treating medical practitioners. screening, manages dietary consultation and maintains records where relevant.	
Pre-requisite for test	**Test Validation**
1. Medical practitioner with authorization to manage to access antimicrobial usage is logged into the system. **2.** Keep a dummy patient record ready with antimicrobial usage policy available in the system **3.** The antimicrobial usage policy is pre-defined in the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to section related to antimicrobial policy in the system. **Step 2.** Check that the policy includes strategies to optimize indication, selection, dosing, route of administration, duration, and timing of antimicrobial therapy. **Step 3.** Confirm that the antimicrobial usage policy is easily accessible and prominently displayed within the system interface. **Step 4.** Verify that medical practitioners can easily refer to the policy document while prescribing antimicrobials, ensuring adherence to the recommended practices. **Step 5.** Simulate a scenario where a medical practitioner prescribes antimicrobial dosage that violates the antimicrobial policy defined by the clinic. **Step 6.** Verify that the system includes an option for medical practitioner to input a reason or justification for prescribing antimicrobial drugs. **Step 7.** Attempt to prescribe antimicrobial drugs to the patient and save the prescription	**1.** The medical practitioner can access the antimicrobial usage policy without any issues. **2.** The system enforces the requirement to provide a justification for antimicrobial prescriptions. **3.** All prescribed antimicrobials adhere to the policy guidelines for indications, selection, dosing, administration route, duration, and timing. If they do not meet guidelines system should display an alert to the user and allow them to proceed further.	Select Yes/No

COP.6. The system supports the risk assessment of patients.	
COP.6.a. The system incorporates different scoring tools for patient risk assessment including clinical risk assessment.	
Test Case. Verify that the system accurately incorporates different scoring tools for patient risk .assessment.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider with authorization to manage to access scoring tools of patient to develop medical conditions or complications is logged into the system. **2.** Ensure a dummy patient with known risk scores—BMI (Body Mass Index), Waist-to-Hip Ratio, and WHO/ISH Risk Score for the Southeast Asia Region—is available in the system.	Manual

3. Risk assessment tools such as BMI, Waist-to-Hip Ratio, and WHO/ISH Risk Score (Southeast Asia Region) are configured and available in the system. **4.** Alert mechanisms are integrated with the scoring tools to notify practitioners based on severity levels.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the OPD section. **Step 2.** Select a dummy patient profile with known risk factors such as BMI, Waist-to-Hip Ratio, and WHO/ISH Risk Score (Southeast Asia Region) etc. **Step 3.** Select the desired risk assessment tool (e.g., BMI, Waist-to-Hip Ratio, WHO/ISH Risk Score). **Step 4.** Enter the required input parameters for the selected tool (e.g., height, weight, waist and hip measurements, age, blood pressure, cholesterol levels). **Step 5.** Initiate the risk score calculation using the system's scoring tool **Step 6.** Review the calculated risk score and the corresponding severity classification. **Step 7.** Check and confirm that the system generates an alert if the score indicates moderate or high risk. **Step 8.** Save the risk score and alert details to the patient's medical record. **Step 9.** Verify that the risk assessment history is accessible and correctly timestamped.	**1.** System should be able to do risk assessment based on patient data and execution of multiple risk assessment tools. **2.** Risk scores are accurately calculated based on validated inputs. **3.** Alerts are generated for moderate and high-risk scores. **4.** Risk scores and alerts are stored in the patient's record with appropriate data.	Select Yes/No

COP.6. The system supports the risk assessment of patients.	
COP.6.b. The system has the capability to auto-calculate clinical parameters, based on other available patient data.	
Test Case. Verify that the system has the capability to auto-calculate clinical parameters, based on available patient data.	
Pre-requisite for test	**Test Validation**
1. Medical practitioners or administrative staff is logged in to the system using valid login credentials to access to the clinical system **2.** Keep dummy patient data available including laboratory results, demographic details, and vital signs. at the time of testing.	Manual

3. System configuration includes rules/formulas for auto-calculation of clinical parameters (e.g., TC/HDL ratio, eGFR, ACR, INR, AST/ALT ratio). 4. Clinical thresholds for alerts/flags are defined in the system. 5. Historical patient data is available for trend visualization.		
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the patient profile section. **Step 2.** Register a new dummy patient and record the initial assessment with various data such as laboratory results, demographic details, and vital signs. (Refer to Annexure H) **Step 3.** Verify that the system auto-calculates other parameters based on the entered data. (Refer to Annexure H) **Step 4.** Check and confirm that parameters such as TC/HDL ratio, eGFR, ACR, INR, and AST/ALT ratio are automatically calculated using the available data. **Step 5.** Check if the system displays visual trends of these parameters over time. **Step 6.** Validate that alerts or flags are generated for any parameter that exceeds clinical thresholds. **Step 7.** Confirm that all calculations and alerts are consistent with clinical guidelines and formulas.	1. System should be able to do Auto-calculated clinical parameters are visible and accurate. 2. Historical trends for each parameter are displayed in graphical format. 3. Alerts or flags are shown for parameters exceeding defined thresholds. 3. Patient data is correctly retrieved and displayed.	Select Yes/No

COP.6. The system supports the risk assessment of patients.		
COP.6.c. The system captures all patient care incidents and sentinel events.		
Test Case Verify that the system captures and manages patient care incidents and sentinel events digitally.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioners or administrative staff with authorization to incident management is logged into the system. 2. Keep a dummy patient registered in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the incident management section from the dashboard.		Select Yes/No

Step 2. Select the option to report a new patient care incident or sentinel event for a dummy patient. **Step 3.** Enter detailed information about the incident or event, including patient like wrong-site procedure, foreign body retention, and medication errors. and a description of the issue. **Step 4.** Submit the report and ensure it is accurately recorded in the system. **Step 5.** Check that the system send alert to the corresponding stakeholders. **Step 6.** Review the recorded incident or event to verify that all details are captured correctly.	**1.** Medical practitioners or administrative staff can successfully report patient care incidents and sentinel events. **2.** The system triggers real-time alerts to relevant employees promptly.	Select Yes/No

COP.6. The system supports the risk assessment of patients.		
COP.6.d. The system maintains records of the clinic's staff exposure to any infections at the workplace.		
Test Case. Verify that the system effectively captures and maintains digital records of clinic's staff exposed to infections (such as HIV, Hepatitis B, and Hepatitis C) during duty hours.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioners or administrative staff with authorization to incident management is logged into the system. **2.** The system has modules for recording exposure incidents and administering prophylaxis. **3.** Keep a dummy clinic's staf registered in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section designated for recording incidents. **Step 2.** Select the option to report a new exposure incident for dummy staff. **Step 3.** Enter detailed information about the exposure, including employee details, infection type, and incident specifics. **Step 4.** Submit the report and ensure the information is accurately recorded in the system. **Step 5.** Verify that the system maintains and updates the digital records of the employee's personal health appropriately.	**1.** The clinic administrator can successfully report the exposure incident with all required details. **2.** Administrators can track exposure incidents and prophylaxis records.	Select Yes/No

Step 6. Check that the system can track exposed employees and generate alerts or notifications for exposure incidents requiring immediate risk assessment and follow-up actions.		

COP.7. The system supports patient services in remote settings.		
COP.7.a. The system offers teleconsultation services.		
Test Case. Verify that the system supports medical practitioners in offering teleconsultation services to patients as required, utilizing various remote/virtual clinical consultation methods.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioners or administrative staff with authorization to conduct teleconsultations is logged into the system. **2.** The system supports multiple channels for teleconsultations desktop/laptop or mobile applications (including video conferencing / instant messaging etc.).	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the appointment scheduling section. **Step 2.** Select the option to initiate a new teleconsultation. **Step 3.** Choose the teleconsultation method (e.g., desktop/laptop or mobile applications (including video conferencing / instant messaging, etc) **Step 4.** Enter patient details and schedule the teleconsultation. **Step 5.** Conduct the teleconsultation using the selected method. **Step 6.** Record the teleconsultation details and any follow-up actions in the system. **Step 7.** Verify that the teleconsultation is accurately documented and accessible in the patient's record.	**1.** The medical practitioner can successfully schedule a teleconsultation. **2.** The teleconsultation is initiated successfully using the chosen channel, and both parties can connect without issues. **3.** The teleconsultation is conducted effectively, covering necessary clinical interactions. **4.** The teleconsultation details are accurately documented in the patient's health record.	Select Yes/No

COP.8. The system provides a Clinical Decision Support System.	
COP.8.a. The system supports Clinical Decision Support System (CDSS) tools.	
Test Case. Verify that the system supports Clinical Decision Support System (CDSS) tools in improving patient outcomes, reducing medical errors, increasing efficiency in care delivery, enhancing communication between clinic and patients, improving patient satisfaction	
Pre-requisite for test	**Test Validation**
1. Medical practitioners or administrative staff should be logged into the system. 2. Relevant clinical guidelines and best practices should be integrated into the CDSS. 3. Keep dummy sample clinical data for testing (e.g., patient demographics, symptoms, medication history) 4. Reference to Annexure I for common CDSS applications	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Medical practitioners or administrative staff Log in to the system using valid administrative credentials. **Step 2.** Navigate to the Clinical Decision Support section or relevant module. **Step 3.** Verify the presence of internal CDSS tools or integration options for external CDSS systems. **Step 4.** Input sample clinical data into the system (e.g., patient symptoms, diagnosis history) **Step 5.** Trigger CDSS functionality for diagnosis support, drug prescription validation, or treatment planning. **Step 6.** Observe and document the system's response, recommendations, or alerts generated by the CDSS. **Step 7.** Cross-reference the output with expected behavior as per any of the types stated in Annexure I applications. **Step 8.** Validate that the system logs the CDSS interaction and recommendations appropriately.	1. System successfully displays available CDSS tools or integration options 2. CDSS functionality is triggered without errors upon input of clinical data 3. Relevant recommendations or alerts are generated based on the input data 4. The output aligns with standard CDSS applications listed in Annexure I.	Select Yes/No

COP.9. The system manages the assessment and re-assessment of patients availing rehabilitation services.		
COP.9.a. The system supports functional assessment and re- assessment of patients who avail rehabilitation services.		
Test Case. Verify that the digital system effectively supports the functional assessment and reassessment of patients availing rehabilitation services.		
Pre-requisite for test	**Test Validation**	
1. Medical practitioners or administrative staff should be logged into the system. 2. Functional assessment scales relevant to each therapy discipline are available and configured in the system. 3. A dummy patient profile is created in the system for testing.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the Rehabilitation Assessments section. **Step 2.** Select a patient requiring functional assessment or reassessment. **Step 3.** Initiate the functional assessment by entering relevant details and test results. **Step 4.** Submit and save the assessment data. **Step 5.** For reassessment, update the patient's existing assessment with new details as required. **Step 6.** Verify that the system accurately records both initial assessments and subsequent reassessments. **Step 7.** Review the assessment records to ensure all data is complete and correctly documented.	1. The system should provide easy access to functional assessment tools relevant to each therapy discipline. 2. Functional assessments should be conducted accurately and efficiently using the integrated assessment scales. 3. The system should support modification of treatment plans based on reassessment findings. 4. Assessment results should be seamlessly integrated into the patient's record ensuring comprehensive documentation.	Select Yes/No

CHAPTER 3

Management of Medication (MOM)

MOM.1. The system maintains inventory records for medicines and consumables in the pharmacy		
MOM.1. a. The system has the capability to search, track and maintain inventory records of medicines and consumables in the pharmacy		
Test Case. Verify the system capability to manage medical supplies using an inventory system, including proper grouping and maintenance of inventory records for different categories of medicines.		
Pre-requisite for test	**Test Validation**	
1. A healthcare staff authorized to configure and manage inventory data should be logged into the system. 2. Dummy stock items should be available in the inventory.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the inventory management section. **Step 2.** Select the option to view or manage the Master Drug Register. **Step 3.** Verify that each medicine and consumable entry displays the following attributes. Brand Name, Generic Name, Strength and Formulation, Batch Number, Expiry Date, and Quantity. **Step 4.** Perform a search using any of the attributes (e.g., Generic Name or Batch Number) and validate that accurate results are displayed. **Step 5.** Group and filter inventory items by category (e.g., Oral Medications, Injectables, Surgical Supplies) and verify that the grouping functionality works as expected. **Step 6.** Add a new stock entry (restocking) and validate that the stock level increases accordingly. **Step 7.** Simulate a sale transaction and confirm that the inventory quantity updates in real-time.	1. The Master Drug Register displays complete and accurate information for each inventory item. 2. The search functionality retrieves relevant inventory records based on user input. 3. Grouping and categorization filters display correct subsets of inventory items. 4. Inventory quantity updates accurately in real-time upon each transaction (sale, return, restocking).	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 8. Simulate a return transaction and confirm that the returned quantity is accurately reflected in the inventory. **Step 9.** View the updated transaction history for the selected item to confirm that all changes are logged with appropriate timestamps and user details.	**5.** All transactions are logged in the system with correct details and timestamps.	

MOM.1. The system maintains inventory records for medicines and consumables in the pharmacy		
MOM.1. b. The system classifies inventory items for inventory management.		
Test Case. Verify inventory item classification using VED, FSN, SDE, ABC, and custom classification methods.		
Pre-requisite for test	**Test Validation**	
1. The Healthcare provider must be logged into the system with appropriate inventory management permissions. **2.** Inventory module should be active and configured. **3.** The inventory database must contain a sufficient number of items for classification. **4.** Classification methods (VED, FSN, SDE, ABC, etc.) must be enabled in system settings.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the Inventory Management module. **Step 2.** Select the option to classify or categorize inventory items. **Step 3.** Choose the VED classification method and initiate the categorization process. **Step 4.** Verify that the system categorizes inventory items into Vital, Essential, and Desirable based on predefined criteria. **Step 5.** Repeat the classification process using the FSN method. **Step 6.** Verify that the system classifies items into Fast-moving, Slow-moving, and Non-moving categories.	**1.** The system successfully classifies inventory items under the VED method. **2.** The system accurately categorizes items using FSN classification based on usage rate. **3.** The system correctly groups items under SDE classification based on availability.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 7. Select the SDE classification option and initiate the grouping. **Step 8.** Confirm that the system groups items as Scarce, Difficult, and Easy to procure. **Step 9.** Apply ABC analysis classification and validate the categorization based on consumption value or cost impact. **Step 10.** Check if the system allows custom classifications such as Emergency Medicine or High-Risk Medicine and validate the assignment of items into these categories. **Step 11.** Save the classification and verify that each item reflects its assigned category accurately in the inventory records. **Step 12.** Navigate to inventory reports and confirm that category-wise filters and reports are generated correctly.	**4.** Items are prioritized accurately using ABC analysis. **5.** Custom classification options such as Emergency or High-Risk Medicine are supported and correctly applied. **6.** All classifications are stored in inventory records and are visible in corresponding reports.	Select Yes/No

MOM.1. The system maintains inventory records for medicines and consumables in the pharmacy		
MOM.1.c. The system notifies about the minimum re-order levels of medications.		
Test Case. Verify that the system can notify relevant stakeholders about minimum re-order levels for medical supplies and alert them when stock levels are low, preventing shortages and ensuring timely reordering.		
Pre-requisite for test	**Test Validation**	
1. A healthcare staff authorized to configure inventory data should be logged into the system. **2.** Create a dummy inventory item and save all relevant information in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the inventory management section. **Step 2.** Check the system settings for minimum re-order levels for medical supplies. **Step 3.** Enter re-order values for dummy items in the inventory based on stock availability or historical data. **Step 4.** Save the re-order values and ensure they are properly stored in the system.	**1.** Healthcare staff is able to set re-order levels for inventory items based on historical data or stock availability. **2.** The system sends timely and accurate alerts when stock levels fall below the set re-order	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 5. Simulate a scenario where stock levels of a medical supply fall below the minimum re-order level. **Step 6.** Check that the system generates an alert or notification for relevant staff/departments, such as inventory managers or procurement teams, through the configured alert mechanism. **Step 7.** Check and confirm that the notification includes details about the specific medical supply, current stock level, and re-order requirements. **Step 8.** Check that notifications are sent promptly and received by the designated staff/departments.		

MOM.1. The system maintains inventory records for medicines and consumables in the pharmacy		
MOM.1.d. The system provides notifications regarding medications that are approaching their expiration date		
Test Case. Verify that the system notifies relevant staff/departments when medications are nearing the expiry date, facilitating timely disposal and preventing potential medical emergencies.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider should be logged into the system using valid credentials.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the inventory management section. **Step 2.** Retrieve a list of medications from the system and select one medication for testing. **Step 3.** Check that the system is configured to monitor expiry dates and trigger notifications a specified number of days before the actual expiry (e.g., 30 days). **Step 4.** Simulate a scenario where medications are nearing their expiry dates by adjusting the system date or manually updating the expiry dates in the inventory records. **Step 5.** Check that the system automatically generates alerts or notifications to relevant staff/departments, such as inventory managers, pharmacists, and medical practitioners, regarding the impending expiry.	**1.** The medication management system provides an option to set notification thresholds for medication expiry dates. **2.** Notifications are triggered and sent to relevant staff/departments as medications approach their expiry dates.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 6. Check that the notification is sent via the configured channels (e.g., dashboard, emails, or other alert mechanisms) and is received promptly by the designated staff/departments. **Step 7.** Review the content of the notification to ensure it includes critical information, such as the medication name, batch number, quantity, and the exact expiry date.	**3.** Staff/departments receive accurate and timely notifications regarding medications nearing expiry. **4.** Notifications include essential information about medication names, expiry dates, and recommended actions.	Select Yes/No

MOM.2. The system supports the process of medication management.		
MOM.2.a. The system defines a list of high – risk medication(s)		
Test Case. Verify that the system is capable of creating and editing the list of high-risk medications, and also check that it is restricted to authorized users.		
Pre-requisite for test	**Test Validation**	
1. User with medication-list management rights (such as a pharmacist or administrator)login credentials should be available. **2.** Reference list available for high risk medication (e.g., Annexure J)	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Log in as an authorized medication administrator. **Step 2.** Navigate to the "High-Risk Medication List" management feature. **Step 3.** Click "Add" or "Define" and search/select medications identified as high-risk (such as Insulin, Chemotherapeutics, Heparin). **Step 4.** Refer to the examples from Annexure J and cross-verify items being listed. **Step 5.** Enter required medication details and save. **Step 6.** Edit or update an existing entry (for example, change the status or remove an obsolete high-risk medication).	**1.** System displays a comprehensive list of high risk medications stored at different locations within the clinic, with accurate details for each medication.	Select Yes/No

Step 7. Attempt to access or edit the list using a non-authorized user account—system should restrict action or display an access denied message. **Step 8.** Review audit log or change history to ensure that all modifications are tracked. **Step 9.** Print or export the final high-risk medication list to verify correct population and completeness. **Step 10.** If applicable, check that relevant alerts or warnings are triggered for these medications elsewhere in the system.	**2.** Healthcare staff can easily update or add new high risk medication records in the system, ensuring timely and accurate management of emergency medication inventory.	Select Yes/No

MOM.2. The system supports the process of medication management.		
MOM.2.b. The system alerts the prescription of a high-risk medication.		
Test Case. Verify that the system alerts the prescription of a high-risk medication.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider should be logged into the system using valid credentials.. **2.** Create a dummy patient medical situation where medication is required for the treatment.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the medication prescribing module. **Step 2.** Prescribe a high-risk medication for a dummy patient. **Step 3.** Confirm that the system generates an alert immediately upon the prescription of the high-risk medication, highlighting the potential risks associated with it. **Step 4.** Verify that the system visually tags the high-risk medication in the prescription interface, making it easily identifiable (e.g., with a color-coded label, icon, or highlight. **Step 5.** Review the alert to ensure it includes critical information such as dosage, contraindications and necessary precautions. **Step 6.** Acknowledge the alert and proceed with the prescription.	**1.** The prescription of the high-risk medication is properly alerted and verified. **2.** The dispensing event is logged in the system. **3.** The system should visually tag high-risk medications.	Select Yes/No

MOM.2. The system supports the process of medication management.		
MOM.2.c. The system generates records of medication errors		
Test Case. Verify that the system generates records of medication errors.		
Pre-requisite for test	**Test Validation**	
1. The system has an active database or repository for storing medication error records. 2. The system has predefined criteria for what constitutes a near miss, medication error, and adverse drug reaction. 3. The system includes analysis tools for pharmacovigilance 4. Historical data on medication errors is available for analysis. 5. Healthcare provider with valid credentials should be logged into system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section where the medication error is recorded. **Step 2.** Simulate an event where a medication error occurs, such as incorrect dosage or wrong medication administration for a dummy patient **Step 3.** Attempt to save or proceed with the input medication details. **Step 4.** Check that the system processes the input and detects a potential medication error based on predefined criteria. **Step 5.** System generates an error alert indicating the nature of the medication error (e.g., "Dosage exceeds recommended limit" or "Medication does not match prescription"). **Step 6.** Acknowledge the error alert **Step 7.** The system allows the user to acknowledge the alert and provides options to correct the error or proceed with logging the error. **Step 8.** The system logs the medication error with detailed information, including the type of error, patient details, medication details, and the user who made the error.	1. All medication errors, near misses, and adverse drug reactions are accurately recorded in the system. 2. System generate log for the medication error with corresponding details. 3. The system provides detailed analysis for pharmacovigilance	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 9. Repeat steps 1-6 to simulate a near miss (e.g., error detected and corrected before reaching the patient) and an adverse drug reaction (e.g., patient experiences an unexpected side effect). **Step 10.** Navigate to the error and Adverse Drug Reactions (ADR) records section. **Step 11.** The error and ADR records section displays a list of logged medication errors, near misses, and adverse drug reactions. **Step 12.** Verify that the logged medication errors, near misses, and adverse drug reactions are present in the records. **Step 13.** The logged events appear in the list with all relevant details (e.g., timestamp, event type, patient information, and the user who logged the event). **Step 14.** The system provides comprehensive analysis and generates detailed reports on medication errors, near misses, and adverse drug reactions.		

MOM.3. The system provides access to locally approved drug information.		
MOM.3.a. The system provides information about drugs which have been approved for usage by CDSCO.		
Test Case. Verify that the system provides access to locally approved drug information including generic equivalents or alternative brand formulations along with relevant details.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider is logged into the system. 2. The system must have a maintained database of medications with corresponding generic and brand names. 3. A dummy patient record should be available or created for test purposes. 4. Add a dummy drug in drug formulary.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the patient consultation or prescription section. **Step 2.** Initiate a new prescription for a dummy patient. **Step 3.** Search for and select a medication from the database.	1. The system auto-populates and displays both generic and brand names of prescribed medications.	Select Yes/No

CHAPTER 4

Digital Applications Controls (DAC)

DAC.1. The system provides secure and flexible access to users		
DAC.1.a. The system supports secure URL access.		
Test Case. Verify that the system supports secure URL access for user.		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider with valid credentials for accessing patient data should be available. **2.** Secure URL to access the system is active.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Access the system using a web browser. **Step 2.** Enter the system's URL in the browser's address bar and press Enter. **Step 3.** Verify that the system redirects to a secure URL, starting with "https.//". **Step 4.** Check that the browser displays a padlock icon in the address bar, indicating that the connection is secure. **Step 5.** Click on the padlock icon to view the security certificate details, and ensure that the certificate is valid and issued by a trusted Certificate Authority (CA). **Step 6.** Confirm that the certificate details, such as the domain name and expiry date, are accurate and up-to-date. **Step 7.** Test the system's response when accessing the URL using "http.//" instead of "https.//", and verify that the system automatically redirects to the secure "https.//" version.	**1.** The system allows access through URL to users with valid credentials.	Select Yes/No

DAC.1. The system provides secure and flexible access to users
DAC.1.b. The system supports application usage on multiple devices.
Test Case. Verify that the system supports the application usage on multiple devices.

Pre-requisite for test	Test Validation	
1. Healthcare provider with valid credentials for accessing patient data should be available. 2. Multiple devices including smartphones, tablet computers, and laptops are available for testing	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Scenario 1 : For laptop/desktop **Step 1.** Open preferred web browsers such as Chrome and Mozilla Firefox **Step 2.** Enter the URL or web address of the system into the browser's address bar. **Step 3.** Try to navigate to the system's login page. **Step 4.** Enter valid credentials to log in to the system. **Step 5.** Once logged in, check that the system interface loads correctly on the devices. **Step 6.** Check for any issues with screen layout, formatting, or functionality on both devices. **Step 7.** Test basic functions such as viewing patient records, entering data, and accessing menus or options. **Step 8.** Check the responsiveness of the system to user interactions and inputs on the devices. **Step 9.** Perform specific tasks within the system that are commonly used by users (e.g. scheduling appointments, and updating patient information). **Step 10.** Verify that users can complete these tasks.	1. The system is accessible, and all features are displayed correctly on smartphones, tablet computers, and laptops. 2. Specific tasks can be performed seamlessly on all devices. 3. The system is responsive, and actions such as scrolling, tapping buttons, and entering data, work smoothly	Select Yes/No
Scenario 2. : For Mobile/Tablet **Step 1.** Open an application on a mobile phone or tablet. **Step 2.** Try to navigate to the system's login page. **Step 3.** Enter valid credentials to log in to the system. **Step 4.** Once logged in, check that the system interface loads correctly on the devices. **Step 5.** Check for any issues with screen layout, formatting, or functionality on both devices. **Step 6.** Test basic functions such as viewing patient records, entering data, and accessing menus or options. **Step 7.** Check the responsiveness of the system to user interactions and inputs on the devices.	1. The system is accessible, and all features are displayed correctly on smartphones, tablet computers, and laptops. 2. Specific tasks can be performed seamlessly on all devices.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 8. Perform specific tasks within the system that are commonly used by users (e.g. scheduling appointments, and updating patient information). **Step 9.** Verify that users can complete these tasks.	**3.** The system is responsive, and actions such as scrolling, tapping buttons, and entering data, work smoothly	

DAC.1. The system provides secure and flexible access to users		
DAC.1.c. The system supports cross-browser compatibility where applicable.		
Test Case. Verify that the system supports cross-browser compatibility, ensuring consistent functionality and display across different web browsers.		
Pre-requisite for test	**Test Validation**	
1. Working browsers like Chrome, Firefox, Safari, and Edge should be available on testing devices. **2.** Users with login credentials should be available.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Open the system on various web browsers commonly used by users, such as Google Chrome, Microsoft Edge, Safari, and Opera. **Step 2.** Check that the system display is consistent across different browsers, with no significant variations in layout, formatting, or visual elements. **Step 3.** Check that all user interface components, including buttons, menus, forms, and images, appear correctly and are aligned properly on each browser. **Step 4.** Perform basic functional tests on the system, such as logging in, navigating through different pages, submitting forms, and interacting with UI elements. **Step 5.** Check that all interactive features and functionalities work as expected on each browser without any errors or inconsistencies. **Step 6.** Check for any browser-specific issues, such as slow rendering or laggy behavior.	**1.** The system performs consistently across Chrome, Firefox, Safari, and Edge (as per the product specifications) **2.** All features and functionalities work correctly without errors or discrepancies	Select Yes/No

DAC.1. The system provides secure and flexible access to users		
DAC.1.d. The system offers multiple digital channels for the patient to engage with the clinic and avail healthcare services.		
Test Case. Verify the functionality and effectiveness of the CMS system's support through multiple service delivery channels.ty, ensuring consistent functionality and display across different web browsers.		
Pre-requisite for test	**Test Validation**	
1. The user (dummy patient) should be logged into the system using valid credentials. **2.** Install the system's mobile app on a smartphone or tablet device.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Identify the different service delivery channels supported by the system, including Web portal, Mobile application (Android/iOS), Chatbots or Messaging platforms, SMS, Web chat, Teleconsultation interface, and email. **Step 2.** Access the system through each identified service delivery channel. **Step 3.** Verify that the user interface is consistent and user-friendly across all service delivery channels, with appropriate layouts and designs. **Step 4.** Perform common user actions, such as scheduling appointments, making payments, or submitting requests, through each channel to ensure functionality is consistent. **Step 5.** Test the accuracy and completeness of data across channels by performing an action on one channel (e.g., scheduling an appointment) and verifying that it reflects correctly on other channels. **Step 6.** Check and confirm that the system's integration with external systems, such as payment gateways or third-party services, ensuring smooth operation across all channels. **Step 7.** Validate that any channel-specific features, such as mobile app notifications or Web Portal, Mobile Application (Android/iOS app), Chatbots or Messaging Platforms, SMS, web chat function as expected.	**1.** Each service delivery channel is tested for functionality and accessibility, ensuring that users can interact with the system seamlessly across various platforms. **2.** Users can receive notifications, access information, and perform necessary actions through their preferred service delivery channels without encountering any issues.	Select Yes/No

DAC.1. The system provides secure and flexible access to users		
DAC.1.e. The system supports a mobile application for medical practitioners that is compatible with the prevalent mobile operating systems.		
Test Case. Verify that the mobile application of the CMS system is compatible with prevalent mobile operating systems.		
Pre-requisite for test	**Test Validation**	
1. The mobile application should be installed on a device running Android and/or iOS. 2. User should be logged into the system using valid credentials	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Open the mobile application on devices compatible with prevalent operating systems such as Android or iOS. **Step 2.** Check that the application's interface and features are displayed correctly on both iOS and Android devices. **Step 3.** Check the basic functionalities such as navigation, input fields, buttons, and menus to ensure they work as expected on each operating system. **Step 4.** Verify that these features work seamlessly on devices running each supported operating system. **Step 5.** Try to perform common tasks, such as logging in, accessing features, and navigating through the app and verify that it works properly.	1. The dedicated mobile application launches successfully on devices compatible with prevalent operating systems. 2. Basic functionalities within the mobile application are tested and perform as expected.	Select Yes/No

DAC.2. The system has robust access and data security controls.	
DAC.2.a. The system encrypts all the healthcare data at rest and in transmission.	
Test Case. Verify that the system utilizes strong encryption methods to protect sensitive data.	
Pre-requisite for test	**Test Validation**
1. System documentation should be available. 2. Encryption algorithms and protocols are defined and implemented for data at rest and in transit. 3. Decryption keys are securely managed and accessible only to authorized personnel. 4. Authorized users with decryption privileges should be available.	Self Attestation

Steps to produce	Expected Outcome	Note/Deviation
The CMS system needs to submit a security white paper explaining the security protocol used to protect the data and it may include below point. **a. Encryption Methods:** The types of encryption (e.g., AES-256, RSA) used to secure data both during storage (data-at-rest) and transmission. **b. Compliance:** Details of the encryption and security practices meet industry standards or regulations (e.g., GDPR, HIPAA, ISO 27001). **c. Secure Communication:** Details about the use of encryption protocols like TLS/SSL for secure communication between systems. **d. Risk Mitigation:** Steps taken to mitigate risks, such as breaches or data leaks, related to encryption failures.	Submission of WASA certification.	Select Yes/No

DAC.2. The system has robust access and data security controls.		
DAC.2.b. The system provides Role-Based Access Control to patient data.		
Test Case. Verify that the system has the capability to implement role based access control ensuring users can access only specific data and functions relevant to their assigned roles.		
Pre-requisite for test	**Test Validation**	
1. User roles and permissions are defined according to the roles and responsibilities within the healthcare organization. **2.** Different users with their login credentials representing different roles should be available at the time of testing. **3.** Create a dummy patient clinical data which includes medical notes, diagnoses, lab results, and other relevant information, and save it into the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Log in to the system using credentials for a healthcare provider role such as Doctor, Nurse, or Administrator staff. **Step 2.** Try to access patient medical records and treatment plans. **Step 3.** Try to perform user role-specific actions for e.g. As a doctor try updating the treatment plan or adding new medical notes.	**1.** The system should enforce role-based access control, allowing users to access only the data necessary for their role. **2.** Unauthorized users should be denied access to patient data.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 4. Attempt to perform actions not permitted for their role (e.g., doctor trying to update billing information). **Step 5.** Confirm that these actions are blocked, screens are not visible for actions outside of the access. An appropriate "Access Denied" message should be displayed wherever necessary. **Step 6.** Log in as a billing department employee. **Step 7.** Verify that the patient data cannot be accessed through the login of the billing department's employee.		

DAC.2. The system has robust access and data security controls.		
DAC.2.c. The system configures rules to capture and retain audit logs.		
Test Case. Verify that the system has the capability to configure rules for collecting and retaining audit logs.		
Pre-requisite for test	**Test Validation**	
1. Healthcare staff/Administrator authorized to access and configure audit logs should be logged into the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the audit log management or configuration section within the system **Step 2.** Attempt to configure a new rule for collecting audit logs related to user login attempts, patient registration, patient discharge. **Step 3.** Save the configured rule and verify that it appears in the list of active audit log collection rules. **Step 4.** Set retention settings for audit logs and ensure they align with compliance requirements (e.g., minimum 5 years). **Step 5.** Perform a series of actions in the system such as logging in successfully, failing to log in with incorrect credentials, registering a dummy patient, and discharging the patient. **Step 6.** Navigate to the Audit Log viewer and verify that each of the above actions is captured with the following details. User Information, Action Type, Action Performed, Timestamp, Status, and IP Address.	**1.** The system allows to configure detailed audit log rules specifying the collection of user information, action types, actions performed, timestamps, status, and IP addresses.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 7. Attempt to modify or delete an audit log entry and verify that the system prevents such tampering, ensuring log immutability. **Step 8.** Use available filter options to retrieve logs based on date range, user ID, action type, or status and verify that results are accurate. **Step 9.** Export the filtered audit logs in a downloadable format (e.g., CSV or PDF) and verify that exported data maintains integrity and formatting.	**2.** The system captures and retains audit logs according to the configured rules.	

CHAPTER 5

Digital Operations Management (DOM)

DOM.1. The system uses standardized design and implementation methodology		
DOM.1.a. The system distributes master data uniformly throughout all modules.		
Test Case. Verify that the system has the capability to store and seamlessly share master files and data across all modules.		
Pre-requisite for test	**Test Validation**	
1. A healthcare staff provider with authorization to create and manage a master file should be logged into the system. **2.** All the information required to create a master file for the patient should be available for the testing.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section with the functionalities related to the management of master files. **Step 2.** Create a master file (For example master file for patient) with relevant information and save it in the system database. **Step 3.** Provide access to the master file and data to a few modules (e.g., billing, scheduling) of the system. **Step 4.** Log in as healthcare staff and check and confirm that the hospital staff with proper authorization can access that file from the system database. **Step 5.** Go to different modules (e.g., billing, scheduling) and check if the master file data is accessible and consistent. **Step 6.** As an administrator, modify a record in the master file in one module. **Step 7.** Go to different modules again to ensure the updated master file data is consistent across all modules and confirm that the changes are reflected consistently across all other modules where the data is utilized. **Step 8.** Attempt to create duplicate master file records within the system. duplication of records.	**1.** The system stores and shares master files and data across all modules. **2.** Data consistency is maintained, and data duplication is prevented.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 9. Check that the system detects duplicity and prevents the creation of duplicate records to maintain data integrity. **Step 10.** Check that the system displays some notification or error message for potential duplication of records.		

DOM.1. The system uses standardized design and implementation methodology		
DOM.1.b. The system provides a help section in the system to guide the users.		
Test Case. Verify that the system incorporates a data backup/archive capability that allows administrators to retain data for a specified retention period, adhering to data compliance requirements and industry best practices.		
Pre-requisite for test	**Test Validation**	
1. A healthcare staff/ administrator with authorization to access the backup/archive setting should be logged into the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section with the functionalities related to data management and backups. **Step 2.** Check that the system allows admin to perform data back-up / archive and asks the admin to set the retention period, which controls for how long data is to be stored (as set by the applicable state law, usually 5 years) **Step 3.** Save the settings and verify that system correctly reflects these settings. **Step 4.** Create one dummy patient record in the system. **Step 5.** Start taking backup of the entire data. **Step 6.** Check the backup logs and storage location to confirm that the backup has been created successfully. **Step 7.** Check if the data from the set time period window is still available in the system. **Step 8.** Check if any data older than retention period, for e.g. 5 years, has been automatically deleted or archived (moved to a long-term storage area) as configured in the system. **Step 9.** Simulate a scenario where the system is restoring backup in the system.	**1.** The system allows the healthcare staff to perform data backup according to the defined retention policy. **2.** The system should automatically delete the backup after the retention period is over. **3.** The system can restore backups, and all data in the backup is accessible to healthcare staff.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 10. Check that the backup is properly restored in the system and all the data in the backup is accessible to the healthcare staff. **Step 11.** Verify that the dummy patient record is successfully restored.		

DOM1. The system uses standardized design and implementation methodology		
DOM.1.c. The CMS vendor defines, and practices source code management processes		
Test Case. Verify that the system implements well-defined source code management processes.		
Pre-requisite for test	**Test Validation**	
	External Certification	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Organization to produce self-declaration that they have a well-defined internal source code management process.	Submission of white paper and confirmation of Self Attestation Source Code Management, Release Management, Backup & Recovery, Access Control, Open-Source Governance	Select Yes/No

DOM.2. The system provides software support and guidance to the users.		
DOM.2.a. The system provides a help section to guide the users.		
Test Case. Verify that the CMS system provides a help section for comprehensive guidance and support to users, including documentation, FAQs, tutorials, etc. to enhance their understanding of system functionalities and troubleshoot common issues.		
Pre-requisite for test	**Test Validation**	
1. User should be logged into the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Access the system's user interface and navigate to the help section. **Step 2.** Review the contents of the help section to ensure it includes comprehensive documentation, covering all system functionalities, features, and processes.		Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 3. Check that the help section contains guidance documents or videos such as a well- organized FAQ (Frequently Asked Questions) section, addressing common user queries and issues, tutorials or guides, either in text or video format, that provide step-by-step instructions for using key features of the system. **Step 4.** Confirm that the help section includes a troubleshooting guide, offering solutions to common technical problems or errors users may encounter.	**1.** The system allows user to access the help section from the main interface and view documentation/blogs, FAQ, tutorial section, etc as required.	Select Yes/No

DOM.2. The system provides software support and guidance to the users.	
DOM.2.b. The CMS vendor provides maintenance and user support in a timely manner, with clearly defined service level agreements (SLAs)	
Test Case. Verify that the CMS system provides timely maintenance and user support, adhering to clearly defined service level agreements (SLAs)	
Pre-requisite for test	**Test Validation**
	Self-Attestation

Steps to produce	Expected Outcome	Note/Deviation
Organization to produce documentation of maintenance contract including SLAs and release management document	Confirmation of documentation	Select Yes/No

DOM.2. The system provides software support and guidance to the users.	
DOM.2.c. The system has capability to roll-back changes by a designated IT officer, whenever needed.	
Test Case. Verify that the system has an automatic or manual transaction rollback capability to return to its previous state in case of transaction errors or failures.	
Pre-requisite for test	**Test Validation**
1. Administrator or designated IT officer credentials are available. **2.** Roll-back functionality is enabled and properly configured. **3.** A backup of the system and data exists before performing patches or upgrades.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Verify that the system is configured to detect transaction errors or failures during processing. **Step 2.** Execute a transaction and simulate a transaction error or failure scenario, such as database connection issues or validation errors. **Step 3.** Check the system's response to the simulated error condition. **Step 4.** Check that the system automatically rolls back the incomplete or erroneous transaction to its previous state. **Step 5.** Confirm that the executed transaction is not saved in the system database **Step 6.** Confirm that the system initiates an automatic rollback of the transaction to its previous state when an error or failure occurs, without requiring manual intervention. **Step 7.** Validate that the system provides a manual rollback option for authorized users, allowing them to revert a transaction to its previous state in case of errors or failures that are not automatically handled.	**1.** The system successfully handles roll-back operations for patches, upgrades, and transactions.	Select Yes/No

DOM.3. The system manages access controls to provide secure access to the users.		
DOM.3.a. The system has the capability to log critical security incidents and events information.		
Test Case. Verify that the system possesses the capability to log critical security incidents and event information effectively.		
Pre-requisite for test	**Test Validation**	
1. Healthcare staff login credentials with authorization to check the security log should be available at the time of testing. **2.** The system is configured to log all critical security incidents and events, including unauthorized access attempts, failed login attempts, data breaches, and other security-related activities.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Simulate a security incident, such as a login attempt with incorrect credentials or an unauthorized access attempt. **Step 2.** Log in to the system as a healthcare provider with authorization to access the security log or audit trails.	**1.** The system accurately logs critical security incidents and events.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 3. Check that the system can log critical security incidents and event information for each logged security incident or event, such as timestamp, user identity, source IP address, and the nature of the incident.	**2.** Logs contain detailed information suitable for post-incident analysis.	Select Yes/No

DOM.3. The system manages access controls to provide secure access to the users.	
DOM.3.b. The system follows a defined password policy for user authentication.	
Test Case. Verify the system's capability to configure passwords in accordance with the clinic's policy.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider with authorization access to configure password settings should be logged into the system. **2.** All the information to create a new user should be available at the of testing.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section related to the password management functionality. **Step 2.** Check system configuration for password policy such as minimum length, complexity, expiration intervals, password renewal timeframe such as 90 days, etc. **Step 3.** Create a new user account and attempt to set a password that does not meet the configured policies (e.g., less than required characters, lacks complexity). **Step 4.** Check that the system rejects passwords that do not meet the defined criteria and provides appropriate error messages or notifications to users. **Step 5.** Try to set a password that satisfies all the mandatory requirements and save it. **Step 6.** Check that the system allows the user to log in to the system with the new password. **Step 7.** Simulate the passage of the number of days set for password renewal and check that the system notifies the user to change their password. **Step 8.** Try to log into the system with the old password and check that the system denies logging in and displays the proper error message /notification.	**1.** The system successfully enforces the defined password policies, ensuring compliance with security standards. **2.** The user is not able to create a password that does not follow predefined rules. **3.** The user is not able to log in to the system with a password that exceeds the password renewal timeframe.	Select Yes/No

DOM.3. The system manages access controls to provide secure access to the users.		
DOM.3.c. The system has the capability to configure an auto screen lock feature.		
Test Case. Verify that the system has the functionality of the auto screen lock as per the interpretation.		
Pre-requisite for test	**Test Validation**	
1. Healthcare staff with authorization to access user management should be logged into the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section where we can configure the auto screen lock fetaure. **Step 2.** Check that administrators can define the period of inactivity after which screens should be automatically locked. **Step 3.** Confirm that there are options to customize the auto screen lock duration, such as specifying the time interval in minutes or hours. **Step 4.** Check that administrators can enable or disable the auto screen lock feature as needed. **Step 5.** Wait for the configured period of inactivity to elapse without any user interaction. **Step 6.** Check that the screen is automatically locked after the specified duration of inactivity. **Step 7.** Attempt to unlock the screen by moving the mouse or pressing keys on the keyboard. **Step 8.** Confirm that the screen remains locked and prompts the user to enter their credentials to regain access.	**1.** The system successfully allows administrators to configure and enable the automatic screen lock feature. **2.** User screens lock automatically after the specified period of inactivity, enhancing security. **3.** Screens remain locked until authenticated users unlock them.	Select Yes/No

DOM.4. The system supports the migration to a new system whenever needed by the clinic.	
DOM.4.a. The system supports the migration to a new system whenever needed by clinic management.	
Test Case. Verify the system's support for migration to a new system by healthcare organization.	
Pre-requisite for test	**Test Validation**
1. A migration plan with all required configurations, data, and system components is prepared. **2.** Sample datasets (e.g., patient, user, or report data) should be available in the system for export. **3.** Supported file formats (CSV, Excel, XML, or JSON) must be configured and operational in the environment.	Self Attestation

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section which is related to Data Management or Administration in the system. **Step 2:** Check if the system allows data export and supports formats like CSV, Excel, XML, or JSON. **Step 3:** Export a sample dataset from the system and save it (for example: patient, user, or report data). **Step 4:** Open the Import/Data Upload section in the system. **Step 5:** Import the exported file and check if all data fields are correctly read and mapped. **Step 6:** Compare key records (like IDs, names, or transactions) in both systems to confirm data matches.	**1.** The system should successfully export data in the selected format without errors. **2.** The exported file should contain accurate and complete data as per the selected dataset. **3.** During import, the system should correctly read and map all data fields from the exported file. **4.** No data loss, duplication, or corruption should occur after import. **5.** Key records such as IDs, names, or transactions should match perfectly between the original and imported datasets, ensuring data integrity.	Select Yes/No

CHAPTER 6

Finance and Procurement Management (FPM)

FPM.1. The system has the capability to manage the supply chain process.		
FPM.1.a. The system configures masters, workflows, and rules for procurement management.		
Test Case. Verify the system has capability to configure workflows for procurement and inventory management.		
Pre-requisite for test	**Test Validation**	
1. Healthcare staff authorized to manage procurement and inventory workflow should be logged into the system. **2.** Master data and workflow configuration access is enabled.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the procurement & Inventory configuration section in the system. **Step 2.** Select the master's tab and create the material master, supplier master, and other necessary data (e.g., item categories, unit of measure, pricing details). **Step 3.** Navigate to the workflow configuration tab and configure workflows for supplier onboarding, procurement, quality control, and stock management. **Step 4.** For supplier onboarding, set up approval processes, documentation requirements, and compliance checks. **Step 5.** Define workflows for procurement, including purchase order creation, approval hierarchies, and supplier selection criteria. **Step 6.** Configure workflows for quality control to track the receipt and inspection of materials, including critical checks for medical devices and general supplies. **Step 7.** Set up stock management workflows, including reorder levels, stock audits, and replenishment based on consumption trends.	**1.** The system should allow administrators to define and customize procurement workflows according to hospital-specific needs. **2.** Workflow configuration options should cover all essential aspects of the procurement process, including approval rules, notifications, and integration capabilities.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 8. Customize procurement and inventory rules for handling specific product categories, such as medical devices vs general supplies, including budget checks, supplier certifications, and regulatory compliance. **Step 9.** Save the configurations and apply system-wide. **Step 10.** Initiate a procurement request for medical devices and verify if the workflows and rules specific to medical devices are correctly applied. **Step 11.** Initiate a procurement request for general supplies and confirm if the respective workflows are followed. **Step 12.** Validate that quality control and stock management workflows are triggered based on the configured rules for both medical devices and general supplies. **Step 13.** Verify the system's flexibility by modifying an existing workflow (e.g., changing the approval hierarchy for procurement of medical devices) and ensuring the changes are applied immediately without system issues.	**3.** The system should execute distinct workflows based on the specific product category during procurement processes.	Select Yes/No

FPM.1. The system has the capability to manage the supply chain process.		
FPM.1.b. The system creates and tracks the purchase order.		
Test Case. Verify the functionality of the digital purchase order system in creating, managing, and tracking purchase orders electronically in a hospital setting.		
Pre-requisite for test	**Test Validation**	
1. Healthcare staff with the authorization to manage purchase orders should be logged into the system. **2.** Relevant test data for items and supplies intended for procurement is available in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the procurement management module. **Step 2.** Select the option to create a new purchase order. **Step 3.** Enter purchase order details, including. vendor information, items details, quantities prices, delivery date and location.	**1.** The purchase order is created, tracked, and completed in the system.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 4. Check and confirm the purchase order details. **Step 5.** Submit the purchase order for approval. **Step 6.** Navigate to the purchase order tracking section. **Step 7.** Verify that the submitted purchase order appears in the tracking list with status (e.g., pending approval, approved, dispatched). **Step 8.** Approve the purchase order if required, based on user role. **Step 9.** After approval, confirm that the purchase order status is updated to 'Approved' and sent to the vendor. **Step 10.** Track the purchase order throughout its lifecycle (e.g., from dispatched to delivered). **Step 11.** Once delivered, check the purchase order status is marked as 'Completed' and verify that the system updates the inventory accordingly.	**2.** Inventory is updated after the purchase order is marked as delivered.	Select Yes/No

FPM.2. The system manages vendor payments.

FPM.2.a. The system supports payments through multiple online/digital channels.

Test Case. Verify the system's capability to facilitate vendor payments through various digital payment channels, including electronic funds transfer (EFT), wire transfer, online bill payment through a bank's website, mobile payment applications, UPI, and credit/debit card payments.

Pre-requisite for test	Test Validation
1. Healthcare staff with authorization to access payment module should be logged in to the system. **2.** Valid vendor details and payment authorization should be available. **3.** Access to different digital payment methods for testing purposes should be available (e.g., online banking, mobile payment apps).	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the vendor payment section. **Step 2.** Select the supplier from the approved supplier list. **Step 3.** Choose the desired digital payment channel from the available options.	**1.** The system should seamlessly facilitate vendor payments through each selected digital payment method.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 4. Enter the necessary payment details, including vendor details (name, account number, contact information), payment amount, invoice or reference number, and payment date. **Step 5.** Check that the system prompts for required information based on the selected payment method. **Step 6.** Initiate the payment transaction through the selected digital payment channel. **Step 7.** Confirm that the payment request has been successfully processed and that a transaction reference or confirmation has been generated. **Step 8.** Check for a payment confirmation message or notification within the system. **Step 9.** Confirm with the vendor or recipient that the payment has been received and processed successfully. **Step 10.** Check and confirm that the system updates payment status to reflect the successful completion of the transaction.	**2.** Each payment method should be integrated effectively within the inventory management system. **3.** Users should be able to initiate payments securely and receive real-time updates on payment status. **4.** Payments made through electronic funds transfer (EFT), wire transfer, online bill payment, mobile payment applications, UPI, and credit/debit cards should reflect accurately in the recipient's account.	Select Yes/No

FPM.2. The system manages vendor payments.

FPM.2.b. The system maintains a record of all payables and receivables of suppliers.

Test Case. Verify the capability of the system to maintain accurate records of all payables and receivables for vendors and customers.

Pre-requisite for test	Test Validation
1. Healthcare staff with authorization to access finance management module should be logged in to the system. **2.** Create dummy payable record for vendor into the system. **3.** Create dummy receivable record for customers into the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the payables functionality of the finance module. **Step 2.** Confirm that the system displays a list of all payables, including the essential details like supplier name, amount, and due date for each invoice.	**1.** The system should maintain accurate records of all payables (vendor transactions) and receivables	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 3. Check details such as vendor name, transaction date, invoice number, amount, and payment/receipt method. **Step 4.** Add a new payable and confirm that it is added to the record of existing payables. **Step 5.** Check for any discrepancies or inaccuracies in the recorded data. **Step 6.** Perform steps 2 to 5 for the receivable records	customer transactions). **2.** Payables records should reflect outstanding amounts owed to vendors, including invoice details and payment statuses. **3.** Receivables records should reflect outstanding amounts due from customers, including invoice details and payment statuses. **4.** Record updates (e.g., invoice payments, settlements) should be reflected in real-time within the system.	Select Yes/No

FPM.2. The system manages vendor payments.	
FPM.2.c. The system generates debit/credit notes for suppliers.	
Test Case. Verify the system's capability to generate debit notes and credit notes accurately for patient or insurance billing purposes.	
Pre-requisite for test	**Test Validation**
1. Healthcare staff with authorization to access finance management module should be logged in to the system. **2.** Sample test data (e.g. patient information, services rendered, charges, and payment due) to create debit and credit note should be available for testing purposes.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the finance management module. **Step 2.** Initiate the process to generate a debit note for a specific vendor. **Step 3.** Enter relevant details for the debit note such as services rendered, charges, and amount due.	**1.** Healthcare staff can generate credit notes that include relevant information about receivable payments from	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 4. Check that the system calculates the total amount owed accurately based on the provided information. **Step 5.** Check that the generated debit note contains all necessary details, including invoice number, date, description of services, and payment terms and save it. **Step 6.** Confirm that the information captured in the debit note matches the data entered during the generation process by cross checking with the real time data. **Step 7.** Repeat step 2 to 6 for credit note generation.	patients or insurance companies. **2.** Healthcare staff can generate debit notes that include relevant information about payable payments to patients or insurance companies.	Select Yes/No

FPM.3. The system performs patient billing functions.	
FPM.3.a. The system configures rates for various services provided by the clinic.	
Test Case. Verify the system's capability to configure treatment packages with a comprehensive range of medical services at set fixed price.	
Pre-requisite for test	**Test Validation**
1. Healthcare staff with authorization to access treatment package configuration section should be logged in to the system. **2.** All the test data should be available which include treatment package.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the service rate configuration section in the system. **Step 2.** Select the option to configure rates for services. **Step 3.** Choose a service from the list of available services. **Step 4.** Verify that the system displays current rate details for the selected service. **Step 5.** Update or configure the rate for the selected service by entering a new rate or adjusting the existing rate. **Step 6.** Save the updated rate configuration. **Step 7.** Verify that the system confirms the successful update of the rate.	**1.** Healthcare staff should be able to configure treatment package which provides comprehensive range of medical services at fixed price. **2.** Healthcare staff can review and modify rates as needed.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 8. Check that the updated rate is reflected accurately in the system for the selected service. **Step 9.** Confirm that the system provides options to review or edit rates as needed. **Step 10.** Validate that the system logs the rate changes, including user details and timestamps, for auditing purposes.		

FPM.3. The system performs patient billing functions.		
FPM.3.b. The system configures patient billing templates.		
Test Case. Verify the functionality of the standardized billing template configuration and print duplicate bills with watermarks but not more than twice in the system.		
Pre-requisite for test	**Test Validation**	
1. Healthcare staff with authorization to configure billing template should be logged in to the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the billing functionality. **Step 2.** Initiate the process to configure a standardized billing template. **Step 3.** Check that the system provides options to define the fields, content elements for the billing template. (if applicable) **Step 4.** Confirm that the standardized billing template configuration supports insertion/ editing of patient-specific details, billing codes, itemized charges, and payment information. **Step 5.** Generate a billing transaction and choose the configured template. Make sure a bill is generated successfully. **Step 6.** Check that the system indicates that the bill is a duplicate and distinguishes it, Check that duplicate bills are clearly marked with watermarks or visual indicators to distinguish them from original bills.	**1.** Healthcare staff should be able to configure billing template as per the requirements to maintain consistency. **2.** Generated duplicate bill should have watermark.	Select Yes/No

FPM.3. The system performs patient billing functions.
FPM.3.c. The system generates patient bills as per the goods and services provided.
Test Case Verify that the system can generate accurate patient bills based on the services provided.

Pre-requisite for test	Test Validation	
1. Healthcare staff with authorization to access billing should be logged in to the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the billing module in the system. **Step 2.** Select the option to generate a bill for a patient. **Step 3.** Choose the patient for whom the bill is to be generated. **Step 4.** Verify that the system displays a summary of the goods and services provided to the patient. **Step 5.** Ensure that the system captures and displays all essential billing details, including services rendered, items consumed, applicable taxes and discounts, and specific billing rules defined by the clinic and insurance providers. **Step 6.** Confirm that the system calculates the total amount due. **Step 7.** Review the generated bill to ensure accuracy and completeness. **Step 8.** Save and print the bill, and verify that all fields are displayed correctly and formatted as per the defined billing standards. **Step 9.** Verify that the system provides options to review or modify the bill before finalization. **Step 10.** Ensure that the system logs the bill generation process, including user details and timestamps, for auditing purposes.	**1.** Patient details and the list of services rendered are displayed. **2.** All services are correctly listed with accurate details. **3.** A bill is generated with all the listed services and their respective costs. The total amount is calculated and displayed. **4.** The bill is confirmed, and a confirmation message is displayed. The bill status should update to "Generated" or "Confirmed". **5.** The bill is printed or saved successfully, and a confirmation message is displayed.	Select Yes/No

FPM.3. The system performs patient billing functions.
FPM.3.d. The system supports patient bill payments through various digital payment channels.
Test Case. The system should have the capability to allow payment through various digital payment modes.

Pre-requisite for test	Test Validation
1. User should be logged in (as a patient) to the system with appropriate authorization.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the finance management section. Step 2. Choose the desired digital payment channel from the available options, including online payment portal and mobile payment applications. **Step 3.** Initiate the payment transaction through the selected digital payment channel. **Step 4.** Confirm that the payment request has been processed successfully and that a transaction reference or confirmation has been generated by the system. **Step 5.** Confirm with the recipient that the payment has been received and processed successfully. **Step 6.** Check and confirm that the system updates payment status to reflect the successful completion of the transaction.	**1.** The system should facilitate digital payments through various online channels and portals. **2.** Users should receive confirmation messages or notifications after completing digital payment transactions through the system.	Select Yes/No

FPM.4. The system supports insurance payment functions.	
FPM.4.a. . The system captures patients' insurance details including their eligibility and coverage.	
Test Case. Verify the capability of the system to perform insurance eligibility verification accurately and efficiently.	
Pre-requisite for test	**Test Validation**
1. Healthcare staff with authorization to access insurance eligibility verification module should be logged in to the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the patient management module in the system. **Step 2.** Select a patient record with valid insurance details. **Step 3.** Initiate the insurance eligibility verification process for the selected patient. **Step 4.** Verify that the system sends a request to the insurance provider or payor for eligibility verification. **Step 5.** Wait for the response from the insurance provider and verify that the system receives the eligibility status accurately (e.g., eligible, ineligible, coverage details).	**1.** The system confirms the insurance plan and policy number. **2.** The system displays coverage dates, copayments, deductibles, and any limitations or exclusions.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 6. Cross-check the eligibility information displayed by the system against the insurance provider's data to ensure accuracy. **Step 7.** If the patient is eligible, verify that the system correctly updates the patient record with the coverage details. **Step 8.** If the patient is ineligible, verify that the system flags the record and provides appropriate alerts or notifications to the user. **Step 9.** Repeat the process for multiple patients with different insurance providers to ensure consistency and efficiency across various scenarios.	**3.** A success message indicating that the insurance eligibility has been verified is displayed.	Select Yes/No

FPM.4. The system supports insurance payment functions.		
FPM.4.b. The system captures pre-authorization details from the payor for planned treatment/ procedures.		
Test Case. Verify CMS system's capability to initiate, process, and secure pre-authorization requests with payors.		
Pre-requisite for test	**Test Validation**	
1. The CMS system has integration with the payor's system. **2.** Patient records and treatment plans are available in the CMS system. Create a payment for two dummy vendors in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the pre-authorization module in the system. **Step 2.** Select the option to capture pre-authorization details from the payor. **Step 3.** Choose the dummy patient and planned treatment/procedure for which pre-authorization is required. **Step 4.** Verify that the system displays a form or interface for entering or receiving pre-authorization details. **Step 5.** Input or verify the following pre-authorization details from the payor. authorization number, authorization date, approved treatments/ procedures, approved dates or time frames.	**1.** The pre-authorization request and response are correctly logged in the CMS system. **2.** Patient information remains secure and confidential throughout the process.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 6. Confirm that the system saves and associates the pre-authorization details with the patient's record and planned treatment/procedure. **Step 7.** Check that the system provides options to review or update the pre-authorization details as needed. **Step 8.** Verify that the system generates and displays a confirmation message or status indicating successful capture of the pre-authorization details. **Step 9.** Confirm that the system logs the pre-authorization details capture process, including user details and timestamps, for auditing purposes.		

FPM.4. The system supports insurance payment functions.	
FPM.4.c. The system captures the claim submission for the payors.	
Test Case. Verify system's capability to initiate, process, and secure claims submission with payors.	
Pre-requisite for test	**Test Validation**
1. Patient records, treatment details, and final costs are available in the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Select the patient record for whom the claim is to be submitted. **Step 2.** Enter the necessary treatment details, including procedures, services, and the final cost of the treatment provided. **Step 3.** Attach supporting documentation (if applicable) (e.g., discharge summary, medical reports, itemized bills). **Step 4.** Submit the claim request to the payor by clicking the 'Submit' button. **Step 5.** Check the system for confirmation that the claim request has been transmitted to the payor. **Step 6.** Retrieve the claim response from the payor. **Step 7.** Access the claims functionality to view the status of the claim (e.g., approved, denied, pending).	1. The claim request and response are correctly logged in the CMS system.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 8. Verify that the received claim details match the submitted request and include the final approved amount and any remarks. **Step 9.** Update the patient's financial record with the final claim status and approved amount.		

FPM.4. The system supports insurance payment functions.		
FPM.4.d. The system has the capability to submit health insurance claims via the National Health Claims Exchange (NHCX)		
Test Case External certification required		
Pre-requisite for test	**Test Validation**	
	External Certification	
Steps to produce	**Expected Outcome**	**Note/Deviation**
	1. Confirmation of External Certification	Select Yes/No

CHAPTER 7

Humar Resource Management (HRM)

HRM.1. The system manages human resource administration.		
HRM.1.a. The system captures personal & professional data (master data) related to medical and non-medical staff.		
Test Case. Verify that the system captures personal and professional data related to medical and non-medical staff.		
Pre-requisite for test	**Test Validation**	
1. A healthcare staff/provider authorized to capture and manage master data, including medical and non-medical staff, is logged in to the system. **2.** Documentation of organization policies and requirements should be available. **3.** Dummy patient with the details such as job title, department, certification, and years of experience should be available for the testing	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the Staff Management or Human Resources section. **Step 2.** Access the functionality to add or update staff information. **Step 3.** Enter personal details for a dummy staff member, including name, date of birth, gender, contact information, and address. **Step 4.** Enter professional details such as job title, department, qualifications, certifications, experience, and employment start date. **Step 5.** Upload supporting documents (e.g., birth certificate, Aadhaar card) and save the staff profile. **Step 6.** Retrieve the staff record and verify that all entered data is accurately displayed. **Step 7.** Edit the profile by updating or adding new information, save changes, and confirm they are correctly reflected. **Step 8.** Assign organizational parameters such as department, reporting manager, and duty hours to the staff member.	**1.** System is able to create, read, update, delete the staff information.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 9. Retrieve and validate that the assigned parameters and updated information are correctly captured. **Step 10.** Attempt to delete the dummy staff record and confirm successful deletion. **Step 11.** Recheck the system to ensure the deleted record is no longer available.		

HRM.1. The system manages human resource administration.		
HRM.1. b. The system assigns unique IDs and role/s to every staff		
Test Case. Verify that the system assigns a unique identifier for each employee within the organization, ensuring uniqueness and assigns role/s to each staff		
Pre-requisite for test	**Test Validation**	
1. A healthcare staff/provider authorized to generate and manage employee unique identifiers (Staff ID) is logged in to the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section with the functionality to manage new staff entry. **Step 2.** Initiate the process of creating a new staff record. **Step 3.** Create multiple new staff records in the system. **Step 4.** Check and validate that each newly created staff record is assigned a unique staff ID. **Step 5.** Verify that the system also provides the option to assign role/s to each staff record that is created. **Step 6.** Try generating a new staff record with the already existing employee details and confirm that the system does not allow it to generate. **Step 7.** Retrieve patient data form lab/rad or other module using dummy patient unique ID.	**1.** The system assigns unique staff IDs and role/s to staff. **2.** Newly generated staff IDs are unique and not duplicated within the system.	Select Yes/No

HRM.1. The system manages human resource administration.
HRM.1. c. The system has the capability to configure duty rules for the staff
Test Case. Verify that the system configures duty rules for the staff, captures and stores relevant staff scheduling data, and performs operations for efficient workforce scheduling.

Pre-requisite for test	Test Validation	
1. A healthcare staff authorized to configure duty rules for employees is logged in to the system. 2. All the information required to configure duty rules for employees is available.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the staff scheduling or workforce management module. **Step 2.** Access the functionality to configure duty rules for staff, including shift timings, break periods, overtime rules, and any other relevant scheduling policies. **Step 3.** Verify that the system correctly stores the configured duty rules and applies them when scheduling staff shifts. **Step 4.** Enter or import staff scheduling data, including shift assignments, days off, and any special scheduling considerations (e.g., night shifts, and weekend duty). **Step 5.** Save the scheduling data and verify that the system accurately captures and stores all relevant details for each staff member. **Step 6.** Test the system's ability to automatically generate staff schedules based on the configured duty rules, ensuring that the schedules comply with the set policies. **Step 7.** Check that the generated staff schedule is aper configure data. **Step 8.** Check that the system provides options to view, edit, or delete staff schedules. **Step 9.** Modify the schedule for a staff member and save the changes. **Step 10.** Check and confirm that the system updates the scheduling data accurately without violating duty rules by cross checking with the changes that made.	1. System configures duty rules for employees according to organizational requirements. 2. Data is accurately captured and stored in the system. 3. The system efficiently creates employee schedules that align with set templates, guidelines, and employee preferences.	Select Yes/No

HRM.1. The system manages human resource administration.

HRM.1. d. The system manages staff attendance and maintains records

Test Case. Verify that the system is capable of configuring attendance rules, supporting various methods of capturing attendance, and maintaining accurate records of attendance and leave

Pre-requisite for test	Test Validation
1. A healthcare staff/provider authorized to access the attendance recording system should be logged into the system. **2.** Dummy Staff members' profiles and relevant attendance settings are correctly configured in the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section where attendance is captured. **Step 2.** Select the option to record attendance for staff. **Step 3.** Input the attendance details for a dummy staff member, including the date, time in, and time out. **Step 4.** Apply some leave for a dummy staff member in the system and save the attendance record in the system **Step 5.** Verify that the leave and attendance are recorded correctly in the system. **Step 6.** Select a date range to view real-time attendance data for all staff. **Step 7.** Check that the real-time attendance data is displayed accurately, reflecting the most recent attendance records. **Step 8.** Check that the system correctly shows applied leave and remaining leave for the dummy staff member	**1.** The system should allow staff attendance to be recorded accurately with required details (date, time in, time out). **2.** The saved attendance data should be stored reliably and reflected correctly in the system. **3.** Attendance data should be viewable for a selected date range and include the latest records.	Select Yes/No

HRM.1. The system manages human resource administration.

HRM.1. e. The system has the capability to calculate, maintain and share staff payroll

Test Case. Verify the system's capability to accurately calculate and share staff payroll based on configured rules, including attendance, leaves, deductions, and other payroll-related parameters.

Pre-requisite for test	Test Validation
1. A healthcare staff/provider authorized to access the payroll/HR module should be logged into the system. **2.** Relevant rules for attendance, leaves, deductions, and other payroll-related parameters are configured as per the requirements. **3.** Dummy staff information including attendance records, leave balances, and other relevant data should be available for testing. (Minimum 2 Set)	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the Staff Management or Human Resources section. **Step 2.** Access the functionality to add or update staff information. **Step 3.** Enter personal details for a dummy staff member, including name, date of birth, gender, contact information, and address. **Step 4.** Enter professional details such as job title, department, qualifications, certifications, experience, and employment start date. **Step 5.** Upload supporting documents (e.g., birth certificate, Aadhaar card) and save the staff profile. **Step 6.** Retrieve the staff record and verify that all entered data is accurately displayed. **Step 7.** Edit the profile by updating or adding new information, save changes, and confirm they are correctly reflected. **Step 8.** Assign organizational parameters such as department, reporting manager, and duty hours to the staff member. **Step 9.** Retrieve and validate that the assigned parameters and updated information are correctly captured. **Step 10.** Attempt to delete the dummy staff record and confirm successful deletion. **Step 11.** Recheck the system to ensure the deleted record is no longer available.	**1.** A healthcare staff/provider is able to compute and distribute staff payroll as per the configured rules and parameters. **2.** The system is able to generate pay slips.	Select Yes/No

CHAPTER 8

Information Management System (IMS)

IMS.1. The system manages human resource administration.		
IMS.1.a. The system supports a minimum set of clinical ABDM FHIR profiles to exchange data with other systems		
Test Case. Verify that the system captures personal and professional data related to medical and non-medical staff.		
Pre-requisite for test	**Test Validation**	
	External Certification	
Steps to produce	**Expected Outcome**	**Note/Deviation**
	1. Only ABDM Certificate is required	Select Yes/No

IMS.1. The system manages human resource administration.		
IMS.1. b. The system supports an extended set of clinical ABDM FHIR profiles to exchange data with other systems		
Test Case Support for Extended Set of Clinical ABDM FHIR Profiles.		
Pre-requisite for test	**Test Validation**	
	External Certification	
Steps to produce	**Expected Outcome**	**Note/Deviation**
	1. Only ABDM Certificate is required	Select Yes/No

IMS.1. The system manages human resource administration.	
IMS.1. c. The system supports an advanced set of clinical ABDM FHIR profiles to exchange data with other systems	
Test Case Support for Advanced Clinical ABDM FHIR Profiles.	
Pre-requisite for test	**Test Validation**
	External Certification

Steps to produce	Expected Outcome	Note/Deviation
	1. Only ABDM Certificate is required	Select Yes/No

IMS.1. The system manages human resource administration.		
IMS.1.d. The system supports ICD 10/11 or SNOMED CT covering clinical terminologies for diagnosis, morbidity and mortality data accurately		
Test Case. Verify that the system supports ICD 10/11 or SNOMED CT codes integration and recommendation for clinical diagnoses.		
Pre-requisite for test	**Test Validation**	
1. The healthcare provider authorized to access patient prescriptions should be logged into the system. 2. The system should be configured to support ICD-10/11 or SNOMED CT code sets. 3. Keep a dummy patient record available in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the section related to patient prescription entry. **Step 2.** Select a dummy patient who requires consultation. **Step 3.** Type a clinical condition (e.g., "Type 2 Diabetes Mellitus") into the diagnosis input field. **Step 4.** Observe whether the system prompts or auto-suggests relevant ICD-10/11 or SNOMED CT codes for the entered condition. **Step 5.** Select one of the recommended codes from the suggestion list. **Step 6.** Confirm and save the selected diagnosis entry. **Step 7.** Repeat the above steps using a different clinical condition (e.g., "Hypertensive heart disease") to validate multiple code mappings. **Step 8.** Log out and re-login to confirm that the diagnosis entries and their associated codes are retained correctly in the patient's record.	1. The system prompts and recommends the correct ICD 10/11 or SNOMED CT codes based on diagnosis keywords. 2. The system allows for accurate manual entry and storage of ICD 10/11 or SNOMED CT codes.	Select Yes/No

IMS.1. The system manages human resource administration.		
IMS.1.e. The system supports SNOMED CT or NRCeS Drug Registry for coding of drugs and devices		
Test Case. Verify that the system supports SNOMED CT or NRCeS Drug Registry for coding of drugs and devices.		
Pre-requisite for test	**Test Validation**	
1. The system should be configured to support the SNOMED CT or NRCeS Drug registry in system. **2.** Keep a dummy patient record in system. **3.** Medical practitioner should be logged into the system with valid credentials.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the prescription or medication order section of a dummy patient's electronic health record. **Step 2.** Initiate a new prescription entry for a drug or medical device. **Step 3.** Search for a drug/device using a clinical term or generic name. **Step 4.** Verify that the system maps the entered item to a SNOMED CT or NRCeS Drug Registry code. **Step 5.** Select the correct item and review the associated coded data (e.g., drug name, code, form, strength). **Step 6.** Complete the prescription and save the record. **Step 7.** Open the saved prescription and verify that the drug/device is stored with its correct code and standardized description.	**1.** The system provides search and selection capabilities using clinical terms linked to SNOMED CT or NRCeS registry codes. **2.** Drug and device entries are accurately mapped and stored with standard codes and descriptions.	Select Yes/No

IMS.1. The system manages human resource administration.	
IMS.1.f. The system supports laboratory tests and observation terminologies and implements coding of lab with LOINC codes	
Test Case. Verify that the system supports LOINC Codes.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider must be logged into the system.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the OPD section **Step 2.** Select a dummy patient record from the system. **Step 3.** Initiate a new laboratory test order entry for dummy patient. **Step 4.** Search for a laboratory test using the common test name (e.g., "Hemoglobin", "Serum Creatinine"). **Step 5.** Observe if the system displays or auto-maps the searched test to its corresponding LOINC code. **Step 6.** Select the required test and review the associated LOINC code and test details. **Step 7.** Complete the lab test order and save the entry. **Step 8.** Open the saved test order or result section and verify that the test is coded with the correct LOINC identifier. **Step 9.** Generate a lab report or export the lab data and confirm that LOINC-coded entries are reflected in the output.	**1.** The system allows selection of laboratory tests using standard terminologies. **2.** Each selected test is associated with a valid LOINC code. **3.** The system provides detailed and accurate information for the assigned laboratory test using the corresponding LOINC code. **4.** The saved clinical documentation correctly includes the LOINC code and displays it accurately when retrieved.	Select Yes/No

IMS.1. The system manages human resource administration.	
IMS.1.g. The system supports DICOM (Digital Imaging and Communications in Medicine) standards for imaging datasets.	
Test Case. Verify that the system supports DICOM Standards.	
Pre-requisite for test	**Test Validation**
1. Healthcare provider with authorization to access radiology module is logged into the system. **2.** A dummy patient record with imaging data and associated diagnostic reports is available. **3.** A dummy patient record should be available in the system for testing purposes. **4.** The system should support DICOM (.dcm) file handling within patient records. **5.** Sample files should be prepared beforehand, including at least one valid .dcm file and one non-DICOM file (e.g., .jpg or .png).	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the Patient Record section and retrieve a dummy patient record. **Step 2:** Try to upload .dcm file(s) within the patient record and verify the system behavior during upload. **Step 3:** Check if the system accepts and correctly identifies the .dcm file as valid imaging data. **Step 4:** Try uploading a non-DICOM file (for example: .jpg or .png) and verify that the system rejects it or shows an appropriate error message. **Step 5:** Confirm that the file name and format (.dcm) are preserved by opening the same image again after upload or processing.	**1.** The system should allow uploading of valid .dcm files within the patient record without any upload errors. **2.** The uploaded .dcm file should be correctly identified as imaging data and properly linked to the patient record. **3.** When attempting to upload a non-DICOM file, the system should reject the file or display an appropriate validation/error message indicating unsupported file format. **4.** After successful upload or processing, the original file name and .dcm format should remain intact and visible when the file is reopened or viewed within the system.	Select Yes/No

IMS.1. The system manages human resource administration.	
IMS.1.h. The system connects with external devices and stores captured information	
Test Case. Verify the system's capability to connect with external devices and store transmitted data.	
Pre-requisite for test	**Test Validation**
1. The healthcare provider must be logged in with administrative privileges. **2.** The system must be installed and operational with device integration capabilities enabled.	Manual

3. External devices such as biometric device, RFID reader, scanner, printer, and barcode scanner must be connected and configured. **4.** At least one dummy patient record and a sample billing or lab scenario must be available for testing.	

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the system's device settings or section related to integration. **Step 2.** Check that the biometric device is detected and listed under connected devices. **Step 3.** Attempt to log in or mark attendance using a registered dummy patients's fingerprint or biometric credentials. **Step 4.** Observe whether the system authenticates the biometric input successfully. **Step 5.** Navigate to the attendance or access log section of the system. **Step 6.** Verify that the biometric event (e.g., login or attendance timestamp) is recorded accurately in the dummy patient's record. **Step 7.** Repeat step 2 to 6 for different external devices such as RFID reader, scanner, printer, and barcode scanner.	**1.** The system detects and recognizes the biometric device. **2.** Biometric authentication is successful for registered users. **3.** Attendance or access data is captured accurately with timestamp and user identification. **4.** The biometric event is stored in the user log and accessible for audit purposes. **5.** FID reader, scanner, printer, and barcode scanner are each successfully detected and integrated with the system. **6.** Data transmitted from each device is accurately captured and stored in the corresponding section.	Select Yes/No

IMS.2. The system manages human resource administration.

IMS.2.a. The system electronically computes and publishes Key Performance Indicators (KPIs) per NABH Standards for Allopathic Clinics 2 Edition.

Test Case. Verify the system's capability to compute and publish KPIs as per NABH standards, with export functionality.

Pre-requisite for test	Test Validation
1. The healthcare provider should be logged into the system.	Manual

2. Relevant patient and administrative data are available in the system. **3.** The list of KPIs and the export format are accessible (Annexure 8 and 'Resources' folder on NABH portal).		
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the KPI computation module. **Step 2.** Choose the relevant KPIs to compute based on NABH accreditation standards. **Step 3.** Define the period for computation by selecting the start and end dates. **Step 4.** Execute the computation process. **Step 5.** Verify that the system accurately computes the KPIs based on the selected period and available data. **Step 6.** Review the computed KPIs displayed by the system. **Step 7.** Ensure the KPIs align with the NABH accreditation standards and reference Annexure L **Step 8.** Select the option to export KPI data. **Step 9.** The desired format for export (JSON). **Step 10.** Export the KPI data and underlying computation to the selected format. **Step 11.** Open the exported file in the chosen format. **Step 12.** Verify that the KPI data and computations are correctly exported and formatted according to 'Resources' folder on NABH portal.	**1.** The system accurately computes KPIs based on the selected period and NABH standards. **2.** The computed KPIs are displayed correctly and align with the NABH accreditation standards. **3.** The system successfully exports KPI data in the selected format, with accurate data and proper formatting as per 'Resources' folder on NABH portal.	Select Yes/No

IMS.2. The system manages human resource administration.	
IMS.2.b. The system can create a clinic's operational performance dashboard.	
Test Case. The system can create a clinic's operational performance dashboard.	
Pre-requisite for test	**Test Validation**
1. The healthcare provider must be logged in with administrative privileges. **2.** The system must be installed and operational with device integration capabilities enabled. **3.** External devices such as biometric device, RFID reader, scanner, printer, and barcode scanner must be connected and configured.	Manual

4. At least one dummy patient record and a sample billing or lab scenario must be available for testing.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the analytics or dashboard module of the system. **Step 2.** Select the option to create or view the clinic's operational performance dashboard. **Step 3.** Specify the reporting time period (e.g., monthly, quarterly) for the dashboard. **Step 4.** Verify that the dashboard displays the total number of patients seen over the selected time period. **Step 5.** Confirm that patient data is categorized by gender, age group, and geography. **Step 6.** Review the revenue section for monthly trends, item-wise breakdown, and total revenue realization. **Step 7.** Check the display of pending payments along with their aging and amount details. **Step 8.** Select and enable additional optional indicators (e.g., appointment no-show rate, staff-to-patient ratio, equipment utilization). **Step 9.** Verify that the additional indicators are accurately populated and reflected in the dashboard. **Step 10.** Export or print the dashboard and confirm the formatting and data integrity.	**1.** The dashboard is generated successfully for the selected reporting period. **2.** The total number of patients is displayed correctly. **3.** Patients are categorized by gender, age group, and geography without error. **4.** Revenue data is correctly presented in monthly, item-wise, and total formats. **5.** Pending payments are displayed accurately with status and amount details. **6.** Optional performance indicators can be selected and are reflected appropriately. **7.** The dashboard can be exported or printed with correct data and layout.	Select Yes/No

IMS.2. The system manages human resource administration.
IMS.2.c. The system provides templates for different services, which can be configured by the clinic
Test Case. Verify the configuration and management of service templates by the clinic

Pre-requisite for test	Test Validation
1. The healthcare provider must be logged into the system with administrative or configuration privileges.	Manual

2. The system must have the template management module enabled. **3.** The library of pre-designed components must be available in the system.		
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the Template Management or Configuration section from the system dashboard. **Step 2.** Click on the option to create a new template. **Step 3.** Select the type of service template to be created (e.g., healthcare package, routine check-up, chronic disease management, preventive health package). **Step 4.** Configure the template by specifying headings, subheadings, and content blocks for inclusion and exclusion of services. **Step 5.** Add relevant services such as consultations, diagnostics, medicines, dietary services, daycare procedures, or wellness screenings based on the selected template type. **Step 6.** Use the library of pre-designed components to insert reusable sections (e.g., price tables, instructions, disclaimers) into the template. **Step 7.** Save the template as a draft and verify that it appears in the list of saved templates. **Step 8.** Open on the draft template to preview its structure and layout. **Step 9.** Make necessary edits to any section and save the updated version. **Step 10.** Finalize and publish the template. **Step 11.** Select the option to print the finalized template and confirm that the print preview matches the configured layout and content.	**1.** The system should allow the user to create a new template for any listed service type. **2.** Users should be able to configure template sections, including headings, subheadings, and service details. **3.** The system should allow insertion of pre-designed components into templates. **4.** Templates should be saved, previewed, edited, and finalized successfully. **5.** The print functionality should generate an accurate representation of the configured template.	Select Yes/No

IMS.3. The system manages human resource administration.	
IMS.3.a. The CMS Vendor should comply with ISO 27001 – 2022 information security standards	
Test Case. **1.** External Certification required **2.** Third party certification (ISO)	
Pre-requisite for test	**Test Validation**
	External Certification

Steps to produce	Expected Outcome	Note/Deviation
External Certification	**1.** Third Party certification (ISO) required.	Select Yes/No

IMS.3. The system manages human resource administration.		
IMS.3.b. The system shall have a valid WASA certification		
Test Case. Verification by External Certification		
Pre-requisite for test	**Test Validation**	
	External Certification	
Steps to produce	**Expected Outcome**	**Note/Deviation**
	1. WASA certificate required	Select Yes/No

CHAPTER 9

Management Of Diabetes (MOD)

MOD.1. The system manages Diabetic patient record.		
MOD.1.a. The system captures diabetes related patient history.		
Test Case. Verify system capability to capture diabetes-related patient history		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider or administrative staff is logged in to the system using valid login credentials. **2.** Keep all the relevant information about the dummy patient available for use.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the dummy patient's medical record in the system. **Step 2.** Access the diabetes history section. **Step 3.** Verify the availability of fields for capturing Clinical Information, including. a. Mother b. Father c. Siblings – Male d. Siblings – Female e. Grandparents – Maternal **Step 4.** Enter relevant values for each field using free text or structured format. **Step 5.** Locate the "Complications" section and confirm the presence of the following fields. a. Date of Assessment b. Retinopathy (with treatment input if marked 'Yes') c. Nephropathy (with treatment input if marked 'Yes') d. Neuropathy e. Tuberculosis f. Sepsis g. Coronary Artery Disease	**1.** System is able to create, read, update, delete the staff information.	Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 6. Populate each complications field and ensure treatment entry is enabled where applicable. **Step 7.** Navigate to the "Comorbidities" section and verify fields for. a. Hypertension b. Dyslipidaemia c. Autoimmune Thyroid Disease d. Celiac Disease e. Chronic Kidney Disease **Step 8.** Enter comorbidity details using structured or free-text input as supported. **Step 9.** Access the "Treatment" section and confirm the following fields are available. a. Insulin Type b. Insulin Regimen c. Oral Hypoglycemic Agents (OHA) d. Lifestyle Modification **Step 10.** Enter treatment-related information into respective fields. **Step 11.** Save the entered diabetes-related history and verify successful operation. **Step 12.** Reopen the dummy patient record and confirm accurate data persistence. **Step 13.** Edit one or more fields and save the updates. **Step 14.** Reopen the record to verify that updated data is correctly reflected.		

MOD.1. The system manages Diabetic patient record.	
MOD.1.b. The system captures diabetes related lab data of patients.	
Test Case. Verify the functionality to capture diabetes related laboratory data and flag values outside reference range	
Pre-requisite for test	**Test Validation**
1. Healthcare provider is logged in to the system using valid login credentials. **2.** Keep all the relevant information about the dummy patient available for use. **3.** All the data required for entering in test case should be available for testing.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section where the health record of a dummy patient is stored. **Step 2.** Retrieve dummy patient record and open the "Laboratory Investigations" section to begin data entry for the dummy patient. **Step 3.** Select the option to add new diabetes-related laboratory investigation results. **Step 4.** Enter the date of the laboratory investigation. **Step 5.** Enter diabetes-related test results. Fasting Blood Glucose, Post Prandial Blood Glucose, and HbA1C. **Step 6.** Record diabetes markers. marker for insulin resistance, pancreatic autoantibodies, and C peptide assay. **Step 7.** Enter renal profile data. urine microscopy (pus cells, RBC), blood urea, serum creatinine, eGFR, and microalbuminuria. **Step 8.** Record liver profile results as per available parameters. **Step 9.** Record routine hematology results. **Step 10.** Enter electrolyte profile data. serum sodium, potassium, and chloride. **Step 11.** Record thyroid profile results. **Step 12.** Enter vitamin B12 assay result. **Step 13.** Confirm that the system displays reference ranges for all entered parameters. **Step 14.** Verify that any values outside the reference range are automatically highlighted or flagged. **Step 15.** Save the lab investigation entry. **Step 16.** Reopen the lab section to ensure all data is saved and flagging is retained.	**1.** The system provides dedicated fields for capturing all listed diabetes-related laboratory parameters. **2.** Healthcare provider is able to enter and save values for all required tests without system error. **3.** System displays the correct reference range for each test parameter. **4.** System successfully highlights and generates alerts for values outside the defined reference range. **5.** All saved laboratory data is retained accurately and can be retrieved for future reference.	Select Yes/No

MOD.1. The system manages Diabetic patient record.
MOD.1.c. The system captures organ systems related examination data for diabetes care and management.
Test Case. Verify the functionality to capture organ systems related examination data for diabetes care and management.

Pre-requisite for test	Test Validation
1. Healthcare provider is logged in to the system using valid login credentials. 2. Keep all the relevant information about the dummy patient available for use. 3. All the data required for entering in test case should be available for testing.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section where the health record of a dummy patient is stored. **Step 2.** Retrive dummy patient record and open the "Organ Systems Examination" section to begin data entry for the dummy patient. **Step 3.** Select the option to add a new organ systems examination entry. **Step 4.** Enter eye examination details. visual acuity, intraocular pressure, retinal (fundus) examination, cataract, and pupil assessment. **Step 5.** Enter foot examination details. visual inspection, Charcot sensory test, footwear evaluation, peripheral pulses (right/left), sensory neuropathy (right/left), and foot ulcers (right/left). **Step 6.** Document renal function status. presence of chronic renal failure or ESRD. **Step 7.** Record skin findings. ulcer, dry skin, fungal infection, healed ulcer, nail deformity, paronychia, callus, and coral. **Step 8.** Enter sensory assessment results. light touch and pinprick touch. **Step 9.** Record oral hygiene status. ulcers and odour. **Step 10.** Document signs of metabolic disorders and diabetes. oedema, xanthelasma, acanthosis nigricans, double chin, parotid enlargement, buffalo hump, and gynecomastia. **Step 11.** Enter cardiovascular findings. heart sounds and murmurs. **Step 12.** Verify that all fields support both structured and free text input. **Step 13.** Save the examination data. **Step 14.** Reopen the section and validate that all saved entries are retained accurately.	1. The system allows data entry for all listed organ system examinations. 2. Healthcare provider is able to enter data for each parameter without error. 3. The entered values are saved successfully and reflected correctly in the patient's examination record. 4. The system validates mandatory fields where applicable before allowing save. 5. Saved examination data is accessible for review in the patient's clinical summary.	Select Yes/No

MOD.1. The system manages Diabetic patient record.		
MOD.1.d. The system captures vaccination details of people living with diabetes.		
Test Case. Verify system functionality for capturing vaccination details for diabetic patients		
Pre-requisite for test	**Test Validation**	
1. Healthcare provider is logged in to the system using valid login credentials. **2.** Keep all the relevant information about the dummy patient available for use. **3.** All necessary input data required for test execution must be readily available prior to testing.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the health record section and locate the dummy patient. **Step 2.** Open the "Vaccination History" or equivalent section for the selected dummy patient. **Step 3.** Click on the option to add a new vaccination record. **Step 4.** Enter vaccination details for each of the following vaccines. Flu, Pneumococcal, Hepatitis B, Tdap, and Zoster. **Step 5.** For each vaccine, provide the following information. • Date of administration • Dose number (if applicable) • Batch or lot number (if applicable) • Administering facility or provider **Step 6.** Save the vaccination record. **Step 7.** Reopen the vaccination history to verify that all entries have been saved and displayed accurately.	**1.** System allows entry of vaccination details for all listed vaccines. **2.** Healthcare provider is able to save vaccination records without errors. **3.** Vaccination data is retained accurately and is available for future reference.	Select Yes/No

MOD.1. The system manages Diabetic patient record.	
MOD.1.e. The system supports the integration of patient care data from monitoring devices.	
Test Case. Verify the integration and automatic transfer of patient care data from monitoring devices into the digital health record.	
Pre-requisite for test	**Test Validation**
1. Health care provider is logged in with appropriate roles/permissions to view and manage patient records.	Manual

2. Patient monitoring devices (e.g., vital sign monitors, wearable sensors) are properly configured and connected to the system via supported interfaces or APIs. **3.** Dummy patient record should be available at the time testing.	

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the patient health records section for a selected dummy patient record. **Step 2.** Check that the patient is assigned a compatible monitoring device (e.g., heart rate monitor or wearable device). **Step 3.** Initiate real-time monitoring on the device and allow it to capture patient vitals (e.g., heart rate, oxygen saturation, temperature). **Step 4.** Confirm that the system receives data from the monitoring device without manual intervention. **Step 5.** Verify that the received data is displayed under the appropriate section (e.g., vital signs or device data) in the patient's digital health record. **Step 6.** Validate the accuracy and timestamp of the received data against the data shown on the monitoring device. **Step 7.** Refresh the patient record and confirm that real-time updates continue to populate the patient data in the system. **Step 8.** Log the activity and data sync events for audit purposes and verify that the integration logs reflect successful communication. **Step 9.** Disconnect the monitoring device and verify that the system no longer receives new data and clearly shows that the device is disconnected.	**1.** The system successfully connects with the patient monitoring device. **2.** Patient care data (e.g., vital signs) is transferred in real-time without manual data entry. **3.** The data is accurately displayed in the correct section of the digital health record. **4.** Timestamps match between the device and the system records. **5.** Integration logs confirm successful communication and data exchange. **6.** The system stops receiving data when the device is disconnected and clearly shows that the device is no longer connected.	Select Yes/No

MOD.1. The system manages Diabetic patient record.
MOD.1.f. The system calculates clinically relevant lab parameters to support assessment and care planning of people living with diabetes
Test Case. Verify auto-calculation of clinically relevant parameters for diabetes care planning

Pre-requisite for test	Test Validation
1. The dummy patient with demographic details and vital signs must be registered in the system with a unique patient identifier. 2. Relevant laboratory results (e.g., serum creatinine, fasting glucose, HbA1c) must be available in the dummy patient's record. 3. The system's auto-calculation functionality must be enabled and functioning.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the dummy patient's clinical profile using the unique patient identifier. **Step 2.** Confirm that demographic details such as age, gender, and ethnicity are correctly populated. **Step 3.** Review the patient's vital signs to ensure all required fields are entered and saved. **Step 4.** Navigate to the laboratory results section and verify the availability of relevant lab values (e.g., serum creatinine, fasting glucose, HbA1c). **Step 5.** Trigger the auto-calculation functionality from the relevant section of the system. **Step 6.** Verify that the system automatically calculates values such as eGFR, eAG, and Insulin Sensitivity Index using available dummy patient data. **Step 7.** Confirm that the calculated parameters are displayed with appropriate units, reference ranges, and date of calculation. **Step 8.** Check and confirm the calculated parameters are saved in the patient record and are accessible for care planning.	1. The system correctly retrieves and uses available demographic, vital, and lab data for calculations. 2. Clinically relevant parameters such as eGFR, eAG, and Insulin Sensitivity Index are automatically calculated. 3. Calculated values are accurately displayed with proper units and reference ranges. 4. All calculated parameters are saved in the patient record and available for clinical decision-making.	Select Yes/No

MOD.1. The system manages Diabetic patient record.
MOD.1.g. The system supports the calculation of diabetes specific risk scores and their inference.
Test Case. Verify the calculation and inference functionality for diabetes-specific risk scores

Pre-requisite for test	Test Validation
1. The healthcare provider must be logged into the system with appropriate clinical access rights.	Manual

2. A dummy patient record (age, waist circumference, physical activity, family history, AST, ALT, platelet count) should be available. **3.** The system must be configured to support the calculation of Indian Diabetes Risk Score and FIB-4 Score.	

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the patient's clinical dashboard using a dummy patient record with required data. **Step 2.** Locate and open the section designated for risk score assessments. **Step 3.** Trigger the calculation functionality for diabetes-related risk scores. **Step 4.** Verify that the Indian Diabetes Risk Score is automatically calculated based on age, waist circumference, physical activity, and family history. **Step 5.** Verify that the FIB-4 Score is automatically calculated based on age, AST, ALT, and platelet count. **Step 6.** Confirm that the corresponding clinical inferences or interpretations are displayed alongside each calculated score. **Step 7.** Review and validate that the calculated values and inferences are consistent with the reference logic defined in Annexure MOD-E. **Step 8.** Save the calculated risk scores and confirm that the operation completes successfully.	1. The system accurately calculates the Indian Diabetes Risk Score using the specified parameters. 2. The system accurately calculates the FIB-4 Score using the specified clinical data. 3. Inferences for both scores are automatically generated and clearly displayed based on the calculation rules provided in the system. 4. All calculated scores and inferences are saved successfully to the patient record.	Select Yes/No

MOD.1. The system manages Diabetic patient record.	
MOD.1.h. The system allows authorised users or predefined clinical logic to assign patient tags or labels (e.g., 'High Risk', 'Needs Retinopathy Screening') that are visible in the patient summary.	
Test Case. Verify manual and automated assignment of patient tags or labels and their visibility in the patient summary	
Pre-requisite for test	**Test Validation**
1. The healthcare provider is logged into the system with appropriate permissions (clinician, nutritionist, or diabetes educator).	Manual

2. A dummy patient record is available in the system. **3.** The system is configured with predefined clinical logic and custom tag rules. **4.** The tagging feature is enabled for the clinic.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the patient record of a dummy patient. **Step 2.** Manually assign a tag (e.g., "Needs Retinopathy Screening") from the tag management or clinical summary section. **Step 3.** Save the assigned tag and return to the patient profile. **Step 4.** Confirm that the manually assigned tag appears prominently within the patient summary section. **Step 5.** Update the patient's clinical data to meet a predefined rule (e.g., enter HbA1c > 9% or IDRS ≥ 60). **Step 6.** Save the updated clinical data. **Step 7.** Verify if the system automatically generates the appropriate tag based on the predefined logic (e.g., "High Risk"). **Step 8.** Confirm that the auto-generated tag appears prominently in the patient summary section. **Step 9.** Navigate to the configuration section and verify that clinics can define custom tags and tagging rules. **Step 10.** Create a custom tag and rule (e.g., “Annual Foot Exam Pending” based on date of last foot exam > 12 months). **Step 11.** Update a dummy patient's data to meet the custom rule and save the changes. **Step 12.** Confirm that the system applies the custom tag and displays it correctly within the patient summary.	**1.** The system allows authorised users to manually assign and save patient tags. **2.** Manually assigned tags are displayed clearly in the patient summary section. **3.** The system auto-generates patient tags when predefined clinical conditions are met. **4.** Automatically assigned tags are displayed prominently in the patient summary. **5.** Custom tags are applied based on rule logic and shown appropriately in the patient profile.	Select Yes/No

MOD.1. The system manages Diabetic patient record.
MOD.1.i. The system captures the meal plan and dietary recommendations.
Test Case. Verify that the system captures the suggested diet plan for a patient

Pre-requisite for test	Test Validation
1. The healthcare provider must be logged into the system with appropriate clinical access rights as a dietitian 2. A dummy patient record available in the system. 3. The user has appropriate permissions to edit patient dietary information. certification, and years of experience should be available for the testing	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the section where the health record of a dummy patient is stored. **Step 2.** Retrieve the dummy patient record and open the "Dietary Recommendations" or equivalent section. **Step 3.** Select the option to add a new dietary recommendation or meal plan. **Step 4.** Enter meal plan details including meal timing, food types, portion size, and frequency. **Step 5.** Enter any specific dietary advice or restrictions (e.g., low salt, high fiber, diabetic-friendly, gluten-free). **Step 6.** Specify the duration for which the dietary plan is to be followed. **Step 7.** Review the entered details and save the dietary recommendations to the patient record. **Step 8.** Verify that the saved meal plan and recommendations are accurately displayed in the patient's dietary record.	1. The system allows access to the dietary recommendations section for the selected patient. **2.** The user is able to enter and save the suggested diet plan without errors. **3.** The saved dietary information is accurately displayed upon reopening the patient record.	Select Yes/No

MOD.1. The system manages Diabetic patient record.
MOD.1.j. The system provides access to open-source diabetes guidelines published by apex bodies/organizations.
Test Case. Verify that the system provides access to diabetes management guidelines from recognized apex bodies and organizations

Pre-requisite for test	Test Validation
1. The healthcare provider must be logged into the system with appropriate clinical access rights as as Diabetic 2. The user has access rights to view resource materials.	Manual

3. The system is configured to support external links, PDF uploads, and/or third-party API integrations.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the patient's clinical dashboard using a dummy patient record that includes the necessary data for diabetes guidelines **Step 2.** Navigate to the "Resources" or "Guidelines" section of the system **Step 3.** Locate the subsection dedicated to diabetes management guidelines. **Step 4.** Verify the presence of listed URL links to recognized diabetes guideline websites. **Step 5.** Check for uploaded PDF files containing diabetes guidelines from apex organizations. **Step 6.** Validate the integration of third-party APIs providing access to diabetes guidelines.(If applicable) **Step 7.** Attempt to open each resource (URL, PDF, API-based content) to confirm accessibility and content relevance.	**1.** The system displays a dedicated section for diabetes management guidelines. **2.** URL links to recognized sources are listed and accessible. PDF files from apex bodies are available and open without error. **3.** API-based content, if present, loads correctly and displays relevant guideline information.	Select Yes/No

MOD.1. The system manages Diabetic patient record.		
MOD.1.k. The system provides the ability to share diabetes related patient education materials through digital channels.		
Test Case. Verify that the system enables sharing of diabetes-related education materials through digital channels		
Pre-requisite for test	**Test Validation**	
1. The healthcare provider must be logged into the system with appropriate clinical access rights. **2.** The patient's profile must be available in the system. **3.** Relevant diabetes education materials are available in the system in various formats (text, infographic, audio, video) and local languages. **4.** Digital communication channels (e.g., SMS, email, chatbot, mobile app) must be configured and enabled in the system.	Manual	
Steps to produce	**Expected Outcome**	**Note/Deviation**
Step 1. Navigate to the patient communication or education module in the system.		Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 2. Retrieve the dummy patient record. **Step 3.** Select the option to share education material. **Step 4.** Choose the appropriate education topic from the list (e.g., Adherence to Treatment Lifestyle Modifications, Hypoglycemia, Insulin and other Injectable Therapies, Foot Care and Pressure, Relieving Footwear, Use of SMBG (Self-Monitoring of Blood Glucose), Meal Planning and Carbohydrate Counting, Diabetic Specific Nutritional Counselling). **Step 5.** Select the preferred format based on the patient's recorded preferences (e.g., text, video, infographic, audio). **Step 6.** Choose the preferred digital communication channel (e.g., SMS, email, mobile app, QR code). **Step 7.** Select the language as per patient's preference (e.g., local or regional language). **Step 8.** Preview the selected material to ensure accuracy and relevance. **Step 9.** Initiate the distribution of the material via the selected channel. **Step 10.** Verify delivery confirmation and check system log entries or status updates for successful transmission.	**1.** The system allows selection of diabetes education topics relevant to the patient's condition. **2.** Materials are available in multiple formats and local languages. **3.** The user is able to select and configure the appropriate digital channel for distribution. **4.** The system successfully transmits the selected material to the patient **5.** The recipient receives the material in the correct format and language via the chosen digital channel.	Select Yes/No

MOD.1. The system manages Diabetic patient record.	
MOD.1.I. The system allows medical practitioners to upload and save diabetes related protocols and SOPs for future reference purposes.	
Test Case. Verify the functionality for uploading and saving diabetes-related protocols and SOPs by a medical practitioner	
Pre-requisite for test	**Test Validation**
1. The medical practitioner must be logged into the system with appropriate access rights. **2.** The system must have a designated section or module for uploading clinical protocols and SOPs. **3.** Relevant diabetes-related protocol or SOP file must be readily available for upload.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the designated section for clinical resources or protocol/SOP uploads in the system dashboard.		Select Yes/No

Steps to produce	Expected Outcome	Note/Deviation
Step 2. Click on the option to upload a new protocol or SOP. **Step 3.** Select the diabetes-related file from the local device (e.g., screening guideline, DSME outline, insulin titration chart). **Step 4.** Enter the document title and a brief description. **Step 5.** Select the appropriate category from the dropdown (e.g., Screening, Education, Medication, Training). **Step 6.** Click 'Upload' or 'Save' to initiate the upload. **Step 7.** Confirm that a success message appears on screen. **Step 8.** Navigate to the repository and verify the uploaded document is listed with correct metadata. **Step 9.** Open the document to ensure it is accessible and displays correctly.	**1.** The system allows the medical practitioner to upload diabetes-related protocols or SOPs without errors. **2.** The uploaded file is saved with the correct metadata and categorization. **3.** A success message is displayed upon successful upload. **4.** The uploaded document is listed in the protocol/SOP repository. **5.** The file can be accessed and viewed for future reference	Select Yes/No

MOD.1. The system manages Diabetic patient record.	
MOD.1.m. The system enables individual level analysis of diabetes specific data.	
Test Case. Verify the functionality for individual-level analysis of diabetes-specific data through time series visualizations	
Pre-requisite for test	**Test Validation**
1. Medical practitioner must be logged into the system. **2.** Dummy Patient data for relevant parameters (e.g., HBA1c, blood glucose levels, BMI, etc.) is available in the system. **3.** The system supports time series chart generation (e.g., line charts). **4.** The user interface includes options to select parameters and time periods. **5.** The system has access to a charting or visualization the data.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the analytics or reporting dashboard of the system. **Step 2.** Select a dummy patient from the list or search using unique patient identifier **Step 3.** Click on "Generate Time Series Chart" to create the report or access the dashboard. **Step 4.** Choose one or more parameters for analysis (e.g., HbA1c, fasting blood glucose, postprandial glucose, random blood glucose, height, body weight, blood pressure, waist circumference, hip circumference, BMI, waist-to-hip ratio, patient KPIs, risk scores, calculated tests). **Step 5.** Select the desired time period for analysis using the date range selector. **Step 6.** Click the "Generate Chart / Report " button. **Step 7.** Review the displayed line chart for accuracy and completeness. **Step 8.** Verify that the chart includes appropriate labels, legends, and time intervals. **Step 9.** Save and confirm the availability of options to export or print the chart for clinical documentation, if applicable.	**1.** 1. The system successfully retrieves and displays individual patient data. **2.** The selected parameters are correctly plotted on a time series line chart. **3.** The chart reflects the chosen time period accurately. **4.** The chart includes clear labels, legends, and units of measurement. **5.** The user is able to view trends and variations over time. **6.** The chart can be saved or exported for future reference. **7.** The system supports analysis for all listed parameters including calculated metrics and KPIs.	Select Yes/No

MOD.1. The system manages Diabetic patient record.	
MOD.1.n. The system enables population level analysis of diabetes specific patient data	
Test Case. Verify the Functionality for Population Level Analysis of Diabetes-Specific Patient Data	
Pre-requisite for test	**Test Validation**
1. Medical practitioner should be logged into the system. **2.** Dummy patient data of diabetes-related patient is available in the system	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the Population Data Analysis or relevant section from the dashboard. **Step 2.** Select the disease category as "Diabetes" **Step 3.** Apply filters for selection (e.g., age group 40–60, male, urban geography, with hypertension). **Step 4.** Initiate analysis for newly diagnosed cases and disease trend over the past 5 years. **Step 5.** Generate risk stratification report including poorly controlled diabetes and lipid profile metrics. **Step 6.** Perform geospatial mapping to visualize disease burden clustering by location. **Step 7.** Conduct cohort comparison for treatment response across different age groups. **Step 8.** Review KPIs related to diabetes management (e.g., HbA1c control rate, follow-up adherence). **Step 9.** Validate risk scores generated for selected cohort. **Step 10.** Review calculated test results (e.g., average HbA1c, LDL levels). **Step 11.** Export charts and tabular data for all analyses performed.	**1.** The system successfully retrieves and displays individual patient data. **2.** Diabetes-specific data is correctly filtered based on selected parameters. **3.** Charts and tables for newly diagnosed cases and disease trends are accurately generated. **4.** KPIs are presented with accurate values and visual indicators. **5.** Risk scores are calculated and displayed for the selected group **6.** Calculated test results are shown with correct statistical values. **7.** Export reports in both chart and tabular formats	Select Yes/No

MOD.1. The system manages Diabetic patient record.	
MOD.1.o. The system supports export of de-identified data for use in diabetes research studies	
Test Case. Verify the Export Functionality for De-identified Patient Data for Diabetes Research	
Pre-requisite for test	**Test Validation**
1. The healthcare provider should be logged into the system having access to patient data with appropriate consent for research use. **2.** The system must have functionality to de-identify patient data by removing direct and indirect identifiers. **3.** The user must have appropriate permissions to access and export data.	Manual

4. The system must have export functionality enabled (e.g., CSV, Excel, JSON formats). 5. A sample dataset must be available for testing	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the data export or research data module in the system. **Step 2.** Select the option to export diabetes-related patient data. **Step 3.** Apply filters to define the target cohort (e.g., age group, gender, treatment type, time period). **Step 4.** Choose the export format (e.g., CSV, Excel, or JSON) and select the option for de-identified export. **Step 5.** Review and confirm that only patients with documented consent for research data sharing are included. **Step 6.** Initiate the export process and download the resulting file. **Step 7.** Open the exported file and verify that all direct and indirect patient identifiers (e.g., name, address, contact details, date of birth, medical record number) have been removed or masked. **Step 8.** Confirm that the exported dataset retains relevant clinical, laboratory, and demographic information required for research without revealing patient identity.	1. The system should allow export of patient data for diabetes research in de-identified format. 2. Only patients who have consented to data sharing for research purposes should be included in the exported dataset. 3. The exported data file should not contain any direct or indirect identifiers of patients. 4. The file should include anonymized clinical, demographic, and laboratory information suitable for research analysis. 5. The export process should complete successfully and the file should be downloadable in the selected format.	Select Yes/No

MOD.1. The system manages Diabetic patient record.
MOD.1.p. The system enables computation, display, and download of diabetes-related Key Performance Indicators (KPIs).
Test Case. Verify the Computation, Display, and Download of Diabetes-Related KPIs.

Pre-requisite for test	Test Validation
1. The healthcare provider should be able to view the dashboard and download data in different formats. **2.** Diabetes-specific KPIs defined and documented in Annexure MOD-F. **3.** System support dashboard visualization and file downloads. **4.** Availability dummy patients data for KPI computation.	Manual

Steps to produce	Expected Outcome	Note/Deviation
Step 1. Navigate to the Diabetes KPI Dashboard module from the main menu. **Step 2.** Initiate the computation process for diabetes-related KPIs as per the configured data set. **Step 3.** Verify that the system successfully computes the KPIs based on available patient data and defined parameters. **Step 4.** Observe the dashboard to ensure that the computed KPIs are accurately displayed in graphical and/or tabular formats. **Step 5.** Verify the availability of the download option for diabetes-related KPIs. **Step 6.** Select the desired download format (e.g., JSON) and initiate the download process. **Step 7.** Confirm that the file is successfully downloaded and contains accurate and complete KPI data as displayed on the dashboard.	**1.** Dashboard displays all relevant Diabetes KPIs as per Annexure MOD-F. 2. Download option is available and functional. 3. KPI Format is selectable and initiates download. 4. The downloaded file should match the data displayed on the dashboard and contain complete and correct KPI information.	Select Yes/No

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