> **Functional Test Cases**

Test ID	Test Case	Input	Expected Result	Actual Result	Status
TID 1	Verify the system can input patient data, medical history, and real-time vitals.	Sample patient data, historical records, and vitals.	System accepts and stores the data without errors.	System accepted and stored the data without errors.	Pass
TID 2	Verify the system's ability to recommend drugs based on input data.	Various combinations of patient data and medical conditions.	System provides appropriate drug recommendations matching established medical guidelines.	System provided appropriate drug recommendations that matched established medical guidelines. System recommended drugs tailored to individual patient factors, avoiding contraindications.	Pass
TID 3	Validate personalized treatment recommendations	Patient data with specific characteristics (e.g., allergies, existing conditions).	System recommends drugs tailored to individual patient factors, avoiding contraindications.	System recommended drugs tailored to individual patient factors, avoiding contraindications.	Pass

➢ Performance Test Cases

Test ID	Test Case	Input	Expected Result	Actual Result	Status
TID 4	Measure system response time under normal and peak loads.	Simulated emergency scenarios with varying data input rates.	System maintains prompt response times, delivering recommendations within acceptable limits.	System maintained prompt response times under both normal and peak loads, delivering recommendations within acceptable limits.	Pass

➢ Security Test Cases

Test ID	Test Case	Input	Expected Result	Actual Result	Status
TID 5	Verify data encryption during storage and transmission.	Patient data and vitals.	Data remains encrypted and secure, with no breaches or unauthorized access.	Data remained encrypted and secure during storage and transmission, with no breaches or unauthorized access.	Pass
TID 6	Test system's compliance with data	Various user access scenarios.	System enforces access controls	System enforced access controls and	Pass

			and auditing, ensuring compliance with privacy standards.	auditing, ensuring compliance with HIPAA and other privacy standards.	
	privacy regulations (e.g., HIPAA).				

> **Usability Test Cases**

Test ID	Test Case	Input	Expected Result	Actual Result	Status
TID 7	Assess the ease of use for healthcare professionals.	interactions with the system interface.	Users can navigate the system, input data, and retrieve recommendations with minimal training.	Users were able to navigate the system, input data, and retrieve recommendations with minimal training.	Pass