MedCall QA Deliverables

# ✅ Test Plan for MedCall

Project: MedCall  
Objective: Validate all functionalities of the MedCall AI hospital platform including patient intake, diagnosis interaction, API integration, state transitions, and error handling.

## 1. Scope

- Patient registration and onboarding  
- AI-powered consultation (intent recognition, diagnosis simulation)  
- Medical record retrieval and update  
- Integration with third-party tools (e.g., LLM, EMR)  
- Prompt tree/states flow  
- Access control & security validation

## 2. Test Items

- AI diagnosis and state prompt transitions  
- Input parsing and response formatting  
- Error handling for invalid inputs  
- Integration with backend (Django API)  
- Tool trigger validation (e.g., appointment scheduling)

## 3. Assumptions

- All APIs are documented  
- Agent prompt logic is stable  
- SIP/WebSocket features not in scope (TCall only)

## 4. Deliverables

- Test Cases (Manual & Automated)  
- Bug Reports  
- Test Summary Report  
- API Response Validation Scripts (Postman or Pytest)

# 🧪 Sample Test Cases for MedCall

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | Title | Steps | Expected Result | Priority |
| MC-001 | Validate patient onboarding flow | 1. Start session 2. Input patient details 3. Submit | Patient registered successfully | High |
| MC-002 | AI correctly interprets medical symptoms | 1. User says 'I have a fever and cough' 2. AI replies | AI replies with diagnosis queries | Critical |
| MC-003 | Tool triggers based on valid user input | Provide valid date/time/people for appointment | Appointment slots shown | High |
| MC-004 | Incorrect date format throws proper error | Enter date as 'next friday' | AI reformats or rejects input | Medium |
| MC-005 | State transitions between diagnosis → lab tests | Progress through intent prompts | State updates correctly | High |

# 🧭 Test Strategy for MedCall

1. Testing Types:  
- Functional Testing (UI + Backend)  
- API Testing  
- Usability Testing (AI prompt effectiveness)  
- Security Testing (Credential handling)  
- Regression Testing on prompt tree updates  
  
2. Tools:  
- Manual: Postman, Browser Console  
- Automation: Pytest + Requests (for APIs), Playwright (for UI)  
- Collaboration: Jira, TestRail  
  
3. Environments:  
- Dev, Staging, Prod (limited testing)  
  
4. Test Data:  
- Synthetic patient data  
- Multiple scenarios: booking, rebooking, cancellation  
  
5. Entry/Exit Criteria:  
- Entry: Deployment complete, APIs stable  
- Exit: All critical test cases pass, no showstopper bugs

# 🔌 API Test Strategy for MedCall

Objectives:  
Ensure all APIs respond as expected, validate logic around prompt inputs, booking tools, and data processing.  
  
Focus Areas:  
- Validate request and response formats  
- Check AI input preprocessing logic  
- Confirm fallback/error messages  
- Stress test prompt parsing  
  
Key Endpoints:  
- POST /book/slot — returns available time slots  
- POST /symptom/analyze — AI parses input and routes to state  
- GET /patient/{id} — retrieves patient details  
  
Tools & Libraries:  
- Postman for exploratory  
- Pytest + Requests + JSON schema for automation

Sample Test (Pytest):  
def test\_slot\_booking():  
 payload = {"date": "2025-06-01", "time": "14:00", "people": 2}  
 response = requests.post("https://api.medcall.ai/book/slot", json=payload)  
 assert response.status\_code == 200  
 assert "available\_slots" in response.json()

# 🐞 Sample Bug Report

ID: MC-BUG-027  
Title: AI doesn't transition to "cancel booking" state from "initial" state  
Environment: Dev  
  
Steps to Reproduce:  
1. Start session  
2. Say: “I want to cancel my appointment”  
3. Observe that the agent gets stuck or gives an irrelevant response  
  
Expected: Agent transitions to cancel state  
Actual: Agent asks unrelated prompt  
Severity: Major  
Assigned To: DevTeam-MedCall