

# Prescription Entry & Validation Module

**Owner:** Shwetank

**Version:** v1.0

**Date:** [30/09/2024]

## 1. Overview

We are building a **Prescription Entry module** within the Health Portal web app. This feature allows doctors to enter prescriptions digitally for patients and enforces dosage and safety validations in real time. The system must support a predefined set of medicines, validate dosage against patient details, and block unsafe or invalid prescriptions.

## 2. Goals

- Ensure doctors can quickly enter prescriptions through a structured web form.
- Prevent invalid or unsafe prescriptions by enforcing rules at form submission.
- Provide clear, inline error messages whenever constraints are violated.

## 3. User Flow

1. Doctor selects a patient record.
2. Doctor opens the “New Prescription” form.
3. Doctor chooses a medicine from a dropdown.
4. Doctor enters dosage strength (mg) and selects frequency (OD, BD, TDS).
5. Doctor fills patient details like age and allergy history.
6. Doctor submits the form.
7. System validates input:
  - If valid → prescription is saved.
  - If invalid → inline errors are displayed, preventing save.

## 4. Functional Requirements

### 4.1 Supported Medicines

- The dropdown should list three medicines only: Paracetamol, Ibuprofen, and Amoxicillin.

#### 4.2 Dosage Validation

- Allowed strengths are 250mg, 500mg, 650mg.
- Dosages above 650mg must be rejected.
- Patients below 12 years: Paracetamol must not exceed 250mg.
- Patients below 6 years: Ibuprofen must not be prescribed.

#### 4.3 Frequency Validation

- Supported frequency options: OD, BD, TDS.
- Any other value should trigger an error.

#### 4.4 Allergy Validation

- If patient has NSAID allergy → block Ibuprofen.
- If patient has Penicillin allergy → block Amoxicillin.
- Error message should include both the allergy and drug name.







#### 4.5 Form Error Handling

- Errors must appear below the respective field.
- The form cannot be saved until errors are resolved.

### 5. Non-Functional Requirements

- All validations must run instantly on submission (<2s response).
- Error messages should be human-readable (e.g., “Ibuprofen cannot be prescribed to patients under 6 years”).
- Module must be responsive and usable on desktop and mobile web.

### 6. Acceptance Examples

- A 10-year-old prescribed Paracetamol 250mg, BD →  accepted.
- A 25-year-old prescribed Paracetamol 650mg, OD →  accepted.
- A 4-year-old prescribed Ibuprofen 250mg →  rejected (age restriction).
- A patient with NSAID allergy prescribed Ibuprofen →  rejected.
- A patient with Penicillin allergy prescribed Amoxicillin →  rejected.
- A prescription with 700mg dosage →  rejected.

### 7. Out of Scope

- Weight-based dosing.
- Medicines beyond the three listed above.

- Units other than milligrams.