

RxNorm Drug Normalization

RxNorm Concept Model

- **Ingredient:** Active ingredient (aspirin)
- **Clinical Drug:** Ingredient + strength (aspirin 81 MG)
- **Branded Drug:** Brand name (Bayer Aspirin 81 MG)
- **RxCUI:** Unique identifier

NDC Mapping

Linked with National Drug Code
Includes manufacturer and package information

Interaction Check

Drug-drug interaction data
Verify contraindications

Normalization Process

Transforms drug data into standardized RxCUI codes to enable consistent data management and analysis.

RxNorm Hierarchy Structure

Ingredient

(Active component)



Clinical Drug

(Ingredient + strength)



Branded Drug

(Brand product name)

Example 1

Ingredient: aspirin

Clinical: aspirin 81 MG

Branded: Bayer Aspirin 81 MG

Example 2

Ingredient: metformin

Clinical: metformin 500 MG

Branded: Glucophage 500 MG

Example 3

Ingredient: lisinopril

Clinical: lisinopril 10 MG

Branded: Prinivil 10 MG

Key Applications of RxNorm

✓ Data Integration

Integrate drug data from different systems

✓ Clinical Decision Support

Provide drug information and alerts during prescribing

✓ Research Analysis

Analyze drug utilization patterns and outcomes

✓ Claims Management

Use standardized codes for insurance claims



Key Points

RxNorm is a standardized drug nomenclature system provided by the U.S. National Library of Medicine (NLM), ensuring interoperability of drug information across different healthcare systems.