

# Development of Robust Comprehensive Code Lists to Ensure Consistency Across Global Real-World Evidence Studies

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## Objective:

Demonstrate a framework using multiple sources and clinical input to enable effective global RWE programs, with both comprehensive and consistent value sets

## Conclusion:

This demonstrates creation of comprehensive value sets  
 → ensure consistency for global RWE studies  
 → appropriate comparison of scientific evidence across studies

## Why is this important?

- Code lists (value sets) provide a basis for computable operational definitions (CODefs) used in cohort selection, case ascertainment, cohort characterization, and outcomes assessment for real-world evidence (RWE) research.
- Significant inconsistencies arise because:
  - different coding systems are used across geographic regions
  - no single reference source exists that contains a comprehensive list of codes/medications for a given clinical concept

### 1. Clinical Concept

Identify the clinical concepts needed for the RWE study

### 2. Reference Sources

Review multiple global/regional reference sources

### 3. Initial Value Set

Aggregate codes/medications across the multiple sources to generate an initial comprehensive value set

### 4. Medical Review

Conduct medical review to confirm the value set

### 5. Map to Code Systems

Map to relevant code systems and link together

### 6. Organize by Indication

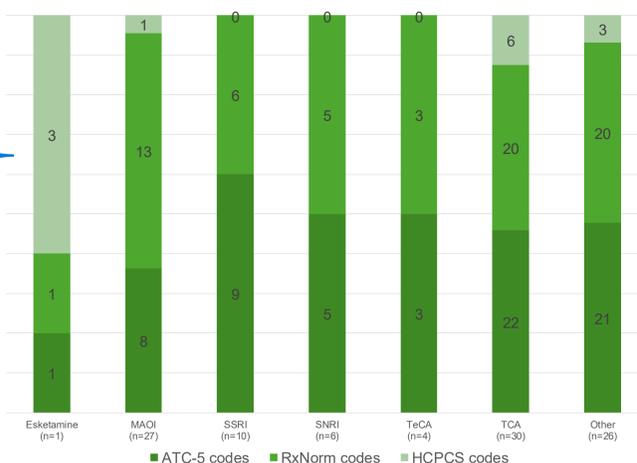
Organize linked value sets into relevant indication or therapeutic libraries

### Antidepressant Therapies

#### 43 Reference Sources

- Health institutes: WHO, APA
- Medical terminologies: WHO ATC, RxNorm, CPT HCPCS
- Published literature and value sets (e.g., NIH NLM VSAC)
- Reputable sites: Drugs.com, Wikipedia, OHDSI

#### 7 Drug Classes: 104 Distinct Meds



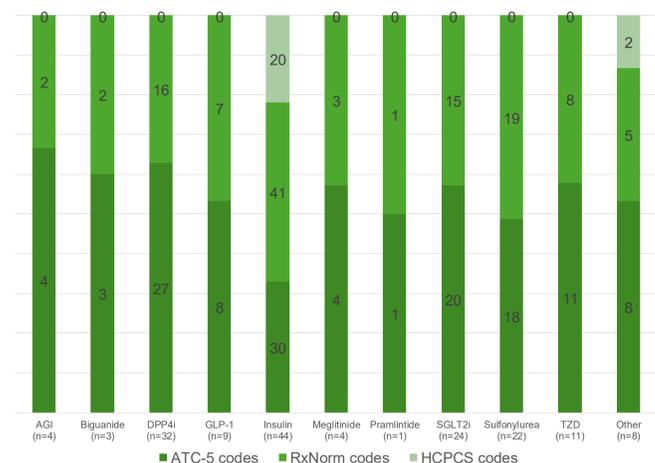
26 distinct new value sets added to the Depression Library

### Antidiabetic Therapies

#### 38 Reference Sources

- Health institutes: WHO, NHS, NIDDK, ADA, Diabetes UK
- Medical terminologies: WHO ATC, RxNorm, CPT HCPCS
- Published literature and value sets (e.g., NIH NLM VSAC)
- Reputable sites: Drugs.com, Wikipedia, OHDSI, CC, MC

#### 11 Drug Classes: 162 Distinct Meds



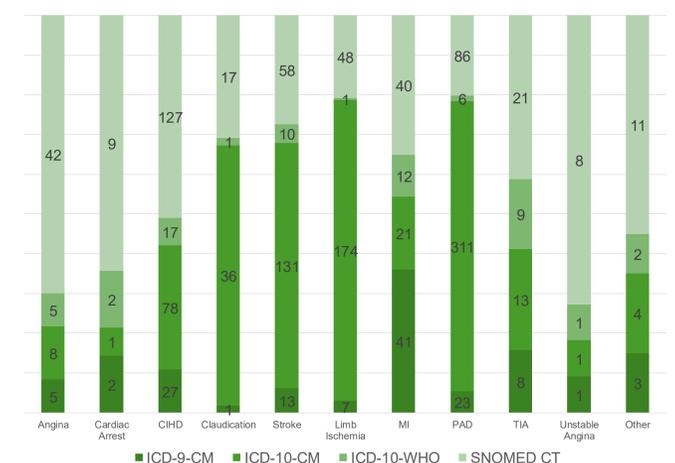
35 distinct new value sets added to the Diabetes Mellitus Library

### Atherosclerotic Cardiovascular Disease (ASCVD) Diagnoses

#### 13 Reference Sources

- Health institutes: NHS NICE, AHA, NHLBI, NRC, ICER
- Medical terminologies: ICD-9-CM, ICD-10-CM, ICD-10-WHO, SNOMED CT
- Published literature and value sets (e.g., NIH NLM VSAC)

#### 11 Distinct Medical Conditions



56 distinct new value sets added to the Cardiovascular Library