Introduction to MED-RT as the Replacement for NDF-RT™

The new Medication Reference Terminology (MED-RT) will be the evolutionary successor to the Veterans Health Administration's National Drug File – Reference Terminology (VHA NDF-RT™). Both are formal ontological representations of medication terminology, pharmacologic classifications, and asserted authoritative relationships between them. Distribution of MED-RT is anticipated to be through the same channels on the same monthly schedule as its predecessor NDF-RT, in XML and other formats. Those who currently consume NDF-RT data in TDE release formats will need to examine and plan for this new format.

IMPORTANT ANNOUNCEMENT: The VHA plans to cease publication of NDF-RT and begin releasing MED-RT instead in the first quarter of 2018.

A *reference* terminology provides common semantics for diverse implementations and is defined by Mayo as "a terminology in which concepts have a formal, machine-usable definition supporting data aggregation and retrieval." As such, MED-RT has been enhanced to rely on relationships or mappings involving concepts in selected, official standardized terminologies, now referenced externally rather than incorporated piecemeal, as was done in NDF-RT.

RxNorm, a formal standardized medication terminology published by the National Library of Medicine (NLM), replaces the VHA National Drug File (NDF) formulary in MED-RT, as a richer source of currently prescribable medications, active ingredients, and their inter-relationships. RxNorm provides normalized names for medications, as well as enabling interoperability with VHA NDF and many of the commercial drug vocabularies commonly used in pharmacy management systems. Other standardized terminologies referenced in MED-RT include the Medical Subject Headings (MeSH) from NLM, using its concept hierarchies for chemical structure and therapeutics indexing; and the Systematized Nomenclature of Medicine -- Clinical Terms (SNOMED-CT) from the International Health Terminology Standards Development Organisation (IHTSDO), facilitating FDA established pharmacologic class mapping into its product and substance hierarchies.

MED-RT will preserve and publish most of NDF-RT's asserted pharmacologic classification relationships. It will also maintain the mechanisms of action (MoA) and physiologic effects (PE) hierarchy concepts designated as National Committee on Vital and Health Statistics (NCVHS) standards to describe medication pharmacologic classification, specified as components of the Federal Medication Terminologies (FMT) initiative.

The Structured Product Labeling (SPL) initiative by the Food and Drug Administration (FDA) relies on concepts from MED-RT MoA, PE, and other classifications to index active moieties in FDA established pharmacologic classes (EPC) within the SPL. A team of FMT Subject Matter Experts (FMT SME) reviews agency requests, recommending MED-RT enhancements and indexing, which FDA takes into consideration when releasing its FDA SPL pharmacologic classification indexing.

MED-RT will publish all its asserted relationships identified by their authoritative source(s). Conflicting assertions from different authorities regarding pharmacologic classification, indexing, or mapping can coexist, labeled clearly in the database to facilitate subset extraction. MED-RT will disseminate new MED-RT-owned or legacy NDF-RT relationships, FMT SME recommendations, and official FDA SPL pharmacologic classifications.