

4. Map Data Sets

Release data structures for the MAP are compliant with SNOMED CT Release Format 2 (RF2) datasets as defined in the [SNOMED CT Release File Specification](#). SNOMED CT Release Files relevant to the MAP structures and definitions important to MAP deliverables identified below include:

Reference Set (Refset): which is defined as a standard format for maintaining and distributing a set of references to [SNOMED CT components](#).

- The structure of reference sets is documented in the [Reference Set Release Files Specification](#).
- For details of the mapping reference set used for the ICD-10 map, see [Extended Map Reference Set](#).

Map member: a single Refset MAP data record which assembles knowledge-based data required to validate the link between a single SNOMED CT concept and at most one ICD-10 classification code. The Map member includes a link to the source SNOMED CT concept identifier, a [mapGroup](#) integer, a [mapPriority](#) integer, a [mapCategoryId](#) status concept reference, a [mapRule](#), [mapAdvice](#), and link to at most one [mapTarget](#) ICD-10 classification code.

mapGroup: an integer assigned to each set of Map members which are coordinated to specify one target ICD-10 code for the map, or the null map if the source concept does not require an additional ICD-10 code for proper classification. Each mapGroup collates and orders the rules, which are sequentially evaluated to yield at most a single target code. The first mapGroup designates the set of records used to specify the first (primary) target code. The second mapGroup identifies the set of data records for the second target code. These are repeated as required to specify a complete set of mapping target codes.

mapPriority: an integer which designates the sequence of run-time Map member processing within each mapGroup. Each data record may include a rule which is designed to be processed in order to provide knowledge-based mapping. Only the first Map member meeting the run-time criteria is taken for the target code within the mapGroup data records.

mapCategoryId: a SNOMED CT foundation metadata concept identifier which indicates the process state for run-time use including the editorial status of the Map member:

- Outside of the scope of ICD 10 ([447636002](#) | Map source concept is outside of the scope of target classification |), no mapping is possible. Due to validation issues encountered related to lack of reproducibility of selection, this mapCategoryId has been demoted and replaced by "cannot be classified".
- The map source concept is properly classified ([447637006](#) | Map source concept is properly classified |) within the target ICD 10 classification for this Map member, so no additional data is necessary for selection of this target code of the map (Exemplar: One to one: #1-10).
- The map source concept cannot be classified ([447638001](#) | Map source concept cannot be classified with available data |) and cannot be assigned a target. This may be chosen when the source concept is not appropriate for assignment of an ICD-10 classification. (Exemplar: NotClassifiable: #1-19), when the source concept cannot be assigned a granular classification specified by ICD-10, as a default map when context must be employed for an accurate map or when the source concept must specify gender or age for assignment of an ICD-10 classification and context is not specified (Exemplar: Gender: #3-5).

There are additional Map Categories that identify editorial process states but are published as a single Map member for the source concept for completeness, auditability and transparency of the MAP:

- The source concept is ambiguous ([447640006](#) | Source SNOMED CT concept is ambiguous |) in its SNOMED CT definition; ambiguity is undergoing resolution before map classification can be concluded. See definition of ambiguity in 6.1.
- Guidance from WHO is ambiguous ([447635003](#) | Mapping guidance from WHO is ambiguous |) relative to the map target; awaiting clarification from WHO.

mapRule: A machine-processable truth statement created to evaluate to "true" or "false" at run-time, which determines whether the Map member should be validated as the correct link to the associated map target for the mapGroup being evaluated.

Formatting of the mapRule is specified in Augmented Backus Naur Form (ABNF) in Appendix A but generally is one of three forms:

1. IFA Concept.id [= VALUE]: a mapRule which evaluates for the existence of one or more SNOMED CT concept instances including their descendant concepts, or an observable and value found in the patient record. The concept is designated by the SNOMED CT Identifier for a clinical finding or observable entity and the SNOMED CT fully specified name. In the case of rules for age at onset of clinical finding or current chronological age, it may include a range of allowable "VALUES". If such an instance is found in the patient record at the time of rule evaluation, the rule is evaluated as "true" and the associated map target is selected for that mapGroup. Otherwise the rule evaluates as "false" and the run-time evaluation proceeds to the next Map member within the mapGroup. The mapAdvice for the record will include a readable statement relating the rule and map target.
2. TRUE: applied when a mapRule is not relevant for evaluation of the Map member and the Map member should always be accepted as valid.
3. OTHERWISE TRUE: employed as the rule in the final mapPriority record when a series of rules must be evaluated to determine the valid map target. This is the case when none of the rules are satisfied or when there is no additional patient context information available. A default target code may or may not be specified with this value for mapRule depending whether the mapCategoryId is properly classified ([447637006](#) Map source concept is properly classified (foundation metadata concept) |) or non-classifiable ().

mapAdvice : human-readable textual advice that a software vendor may employ to inform the clinician user or the classification expert during a semi-automated mapping session. The mapAdvice has three components separated by vertical bar ("|"):

- A summary statement of the mapRule logic in readable terms for the clinical user
- Supplementary metadata guidance intended to clarify the map for the coding professional. Metadata advice supported in the MAP includes:
 - FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE SITE
 - MAPPED FOLLOWING SNOMED GUIDANCE
 - MAPPED FOLLOWING WHO GUIDANCE
 - POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION
 - POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE
 - POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE
 - POSSIBLE REQUIREMENT FOR MORPHOLOGY CODE

- POSSIBLE REQUIREMENT FOR PLACE OF OCCURRENCE
 - THIS CODE IS NOT TO BE USED IN THE PRIMARY POSITION
 - THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE
 - THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION
 - USE AS PRIMARY CODE ONLY IF SITE OF BURN UNSPECIFIED, OTHERWISE USE AS SUPPLEMENTARY CODE WITH CATEGORIES T20-T29 (BURNS)
 - THIS MAP REQUIRES A DAGGER CODE AS WELL AS AN ASTERISK CODE
 - MAP IS CONTEXT DEPENDENT FOR GENDER (obsolete)
 - DESCENDANTS NOT EXHAUSTIVELY MAPPED (obsolete)
- A summary statement reporting the mapCategoryId for readability of Map members which do not have a Map Target:
 - 447638001: "MAP SOURCE CONCEPT CANNOT BE CLASSIFIED WITH AVAILABLE DATA"
 - 447635003: "MAPPING GUIDANCE FROM WHO IS AMBIGUOUS"
 - 447640006: "SOURCE SNOMED CT CONCEPT IS AMBIGUOUS"