# *Why search or query SNOMED CT content?*

Common use cases include:

- Terminology authoring

- Reference set authoring – intensional sets

- Mappings

- Terminology binding

- EHR queries

- Validation/QA

# *Challenges*

- Over 300,000 concepts
- Lexical search may be insufficient
  - Different meanings could still carry the same description
- Semantic search requires comprehensive knowledge of the concept model
- Various component properties, extendable by RF2
- Average users have high-level or only vague understanding of SNOMED CT

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# *A search interface must be*

- … powerful enough to cater for all the relevant attributes (including lexical, semantic and metadata searches).

- …yet simple and user friendly.

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# *Snow Owl Meaningful Query (MQ)*

- Online browser for SNOMED CT and extensions
  - Advanced search
  - Filtered hierarchy
- EHR datastore
- Semantic query engine to extract the semantics captured in EHRs
- Terminology server integration

# *DEMO*

# *Introduce filters*

- Concept, Description, Property, Refset and Mapping filters

- Some relevant filters: property-value, module, description term, reference set, mapping

# *Features to check out*

- Create a simple filter
- Open a few more complex filters
- Browse view
- Filtered browse view

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# *QUESTIONS?*

*THANK YOU!*

# The advanced search interface

# *Lexical search in a specific description type*

To return all concepts that have an active SG English preferred term containing the word tetralogy.

# *Search by attribute (relationship)*

To return all concepts, that have a procedure device type of attribute, or any of its subtypes (eg. direct device), with the value of arthroscope.

# *Search by attribute (concrete domain)*

To return all concepts with the active ingredient of paracetamol, whose strength is between 50 and 500 mg.

SNOMED CT

Showcase demo                                                    ✎   ☐ New   ☐ Save   ⌄

Match [ All ⌄ ] of the following rules:

| Property name/value ⌄ | 🔍 Defining strength 1 numerator value | | ⊗ | − | + |

from [ 50 ] to [ 500 ] 🔍 mg ⊗

| Property name/value ⌄ | 🔍 Active ingredient | ⊗ | [ ⌄ ] | − | + |

[ is ⌄ ] 🔍 Paracetamol ⊗ [ ⌄ ]

[ Type here to filter ]   1,554 results                ≪   <   Page: [ 1 ]  / 16  >   ≫

| Preferred term | ⌄ | Status | Module | Sc |
|---|---|---|---|---|
| 🖊 ACET 120 [Paracetamol] 120 mg Suppository | | active | SNOMED CT Singapore Drug Dictionary Extension | 1 |
| 🖊 ACET 120 [Paracetamol] 120 mg Suppository (12 suppositories) | | active | SNOMED CT Singapore Drug Dictionary Extension | 1 |
| 🖊 ACET 120 [Paracetamol] 120 mg Suppository (3 x 4 suppositories per strip) | | active | SNOMED CT Singapore Drug Dictionary Extension | 1 |
| 🖊 ACET 120 [Paracetamol] 120 mg Suppository (3 x 4 suppositories) | | active | SNOMED CT Singapore Drug Dictionary Extension | 1 |
| 🖊 ACET 120 [Paracetamol] 120 mg Suppository (4 suppositories per strip) | | active | SNOMED CT Singapore Drug Dictionary Extension | 1 |

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# *Complex query*

The below query combines hierarchical, attribute, lexical and metadata searches, using logical and, logical or operators and exclusion.

# *Search in reference set*

To return members of a reference set.

# *Search by mapping*

To search concepts by their maps. The below example returns all concepts, that are mapped to the specified ATC code.

# *Browse hierarchy*

# Quick filter hierarchy

# Apply a pre-authored filter

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# *Manage filters*

# *Dashboard*