

**SNOMED Clinical Terms**

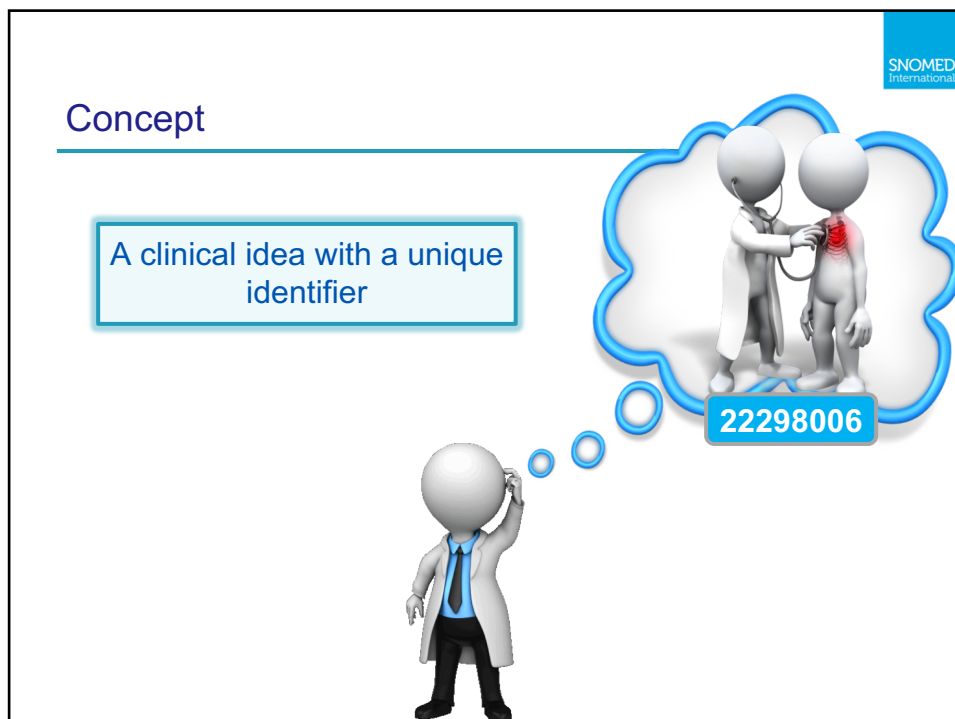
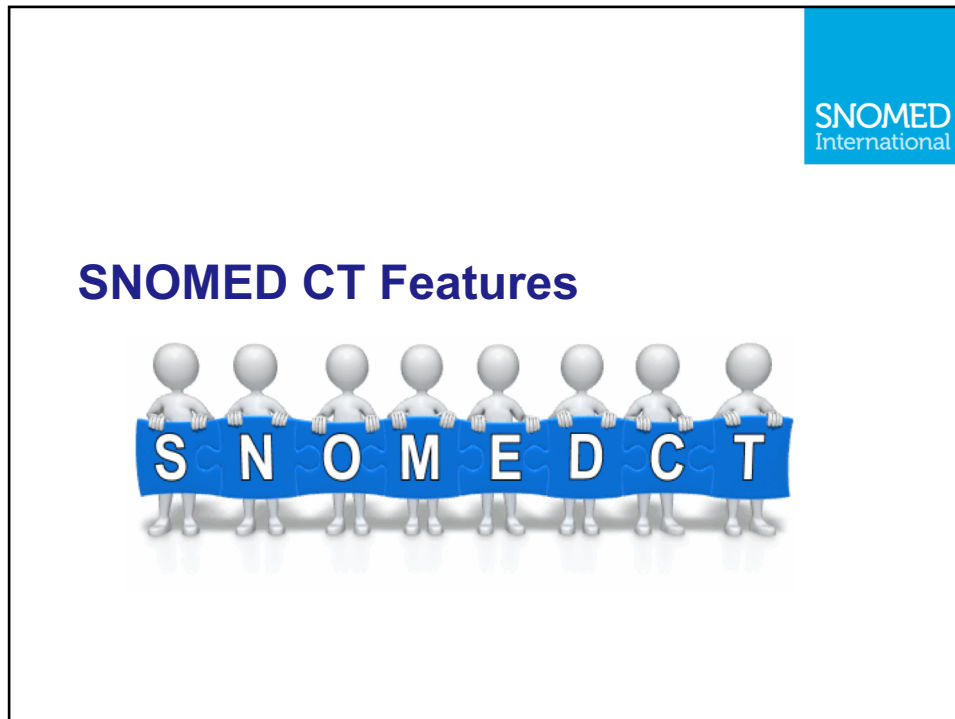
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- Most comprehensive multilingual clinical terminology
- Supports high quality clinical content in health records
- Increasing number of tools and implementations around the world
  - Used in more than 90 countries
  - Online SNOMED CT Browser <https://browser.ihtsdotools.org/>
  - Examples of deployments <http://snomedinaction.org/>

SNOMED International

A 3D white character is holding a tablet and pointing at it. The character is wearing a white lab coat and blue pants. In the top right corner, there is a blue square with the text 'SNOMED International' in white.





SNOMED International

## Description

<b>FSN</b>	myocardial infarction (disorder)	751689013
<b>SYN</b>	myocardial infarction	37436014
<b>SYN</b>	cardiac infarction	37442013
<b>SYN</b>	heart attack	37333015
<b>SYN</b>	MI – Myocardial infarction	17848
<b>SYN</b>	myocardial infarct	17848

22298006

Human-readable term linked to a concept

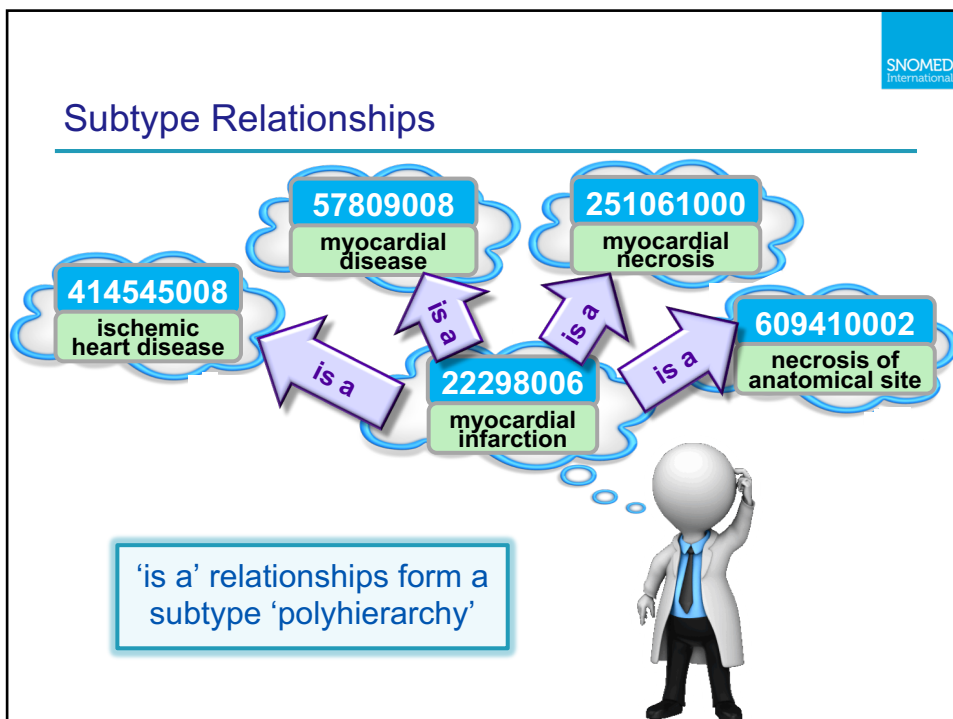
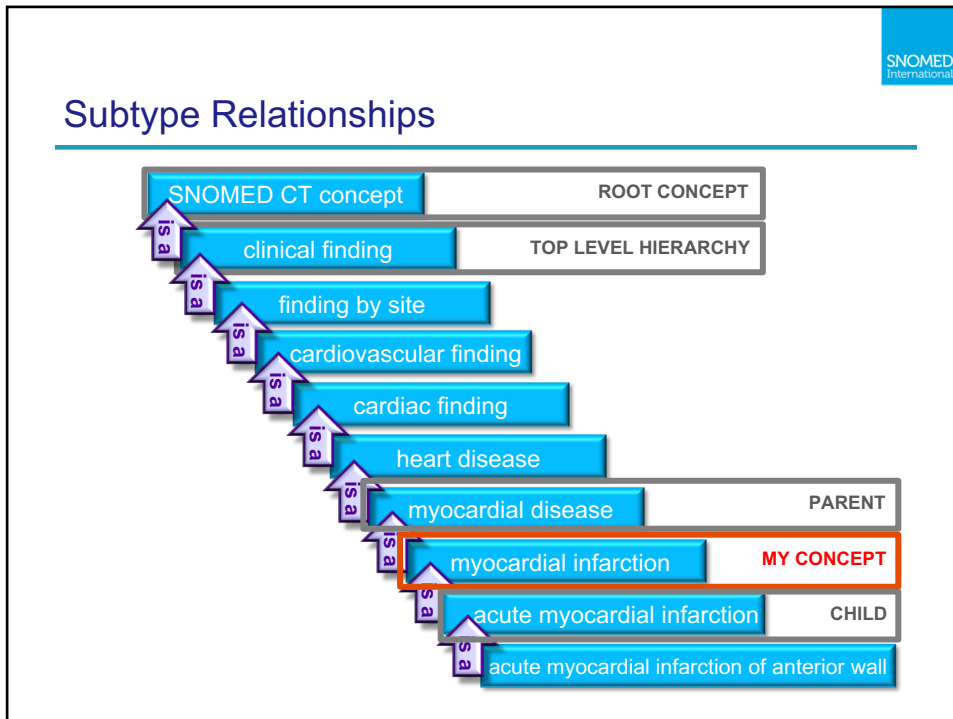
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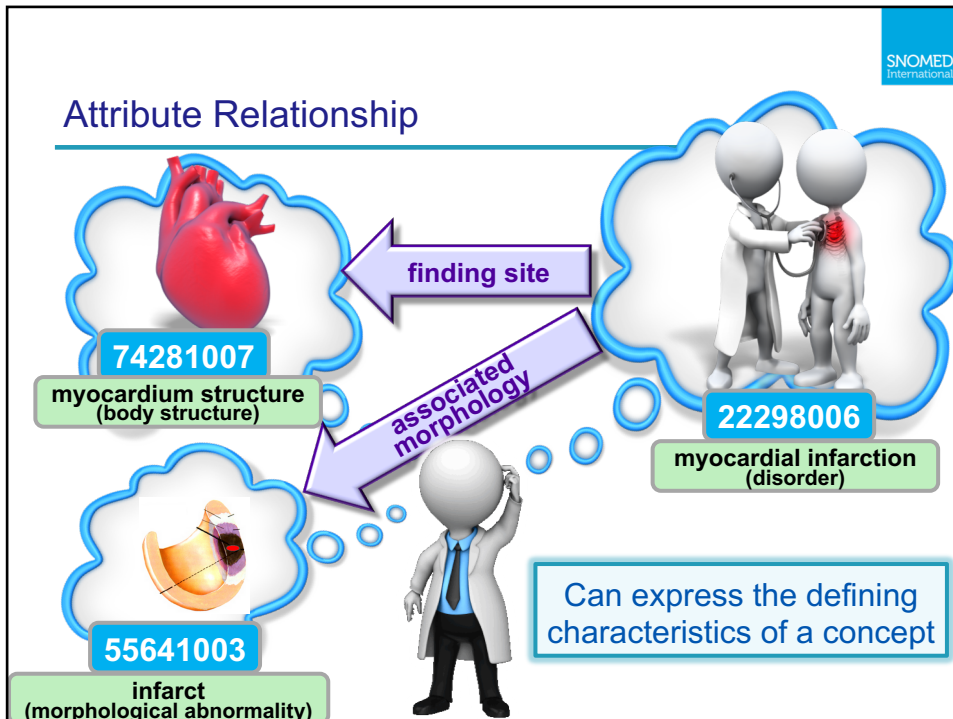
## SNOMED CT Content Hierarchies

Diagnosis  
 Family history  
 Lab test results  
 Allergies  
 Reason for admission  
 Surgery  
 Medication  
 Therapy  
 Care plan

Health Records  
 Terminology

- ▼ ● SNOMED CT Concept
  - > ● Body structure (body structure)
  - > ● Clinical finding (finding)
  - > ● Environment or geographical location (environment / location)
  - > ● Event (event)
  - > ● Observable entity (observable entity)
  - > ● Organism (organism)
  - > ● Pharmaceutical / biologic product (product)
  - > ● Physical force (physical force)
  - > ● Physical object (physical object)
  - > ● Procedure (procedure)
  - > ● Qualifier value (qualifier value)
  - > ● Record artifact (record artifact)
  - > ● Situation with explicit context (situation)
  - > ● SNOMED CT Model Component (metadata)
  - > ● Social context (social concept)
  - > ● Special concept (special concept)
  - > ● Specimen (specimen)
  - > ● Staging and scales (staging scale)
  - > ● Substance (substance)





### SNOMED CT – Not Just a Code System

- Logical relationships between concepts supports meaning-based processing

**Parents**

- > Ischemic heart disease (disorder)
- > Myocardial disease (disorder)
- > Myocardial necrosis (finding)
- > Necrosis of anatomical site (disorder)

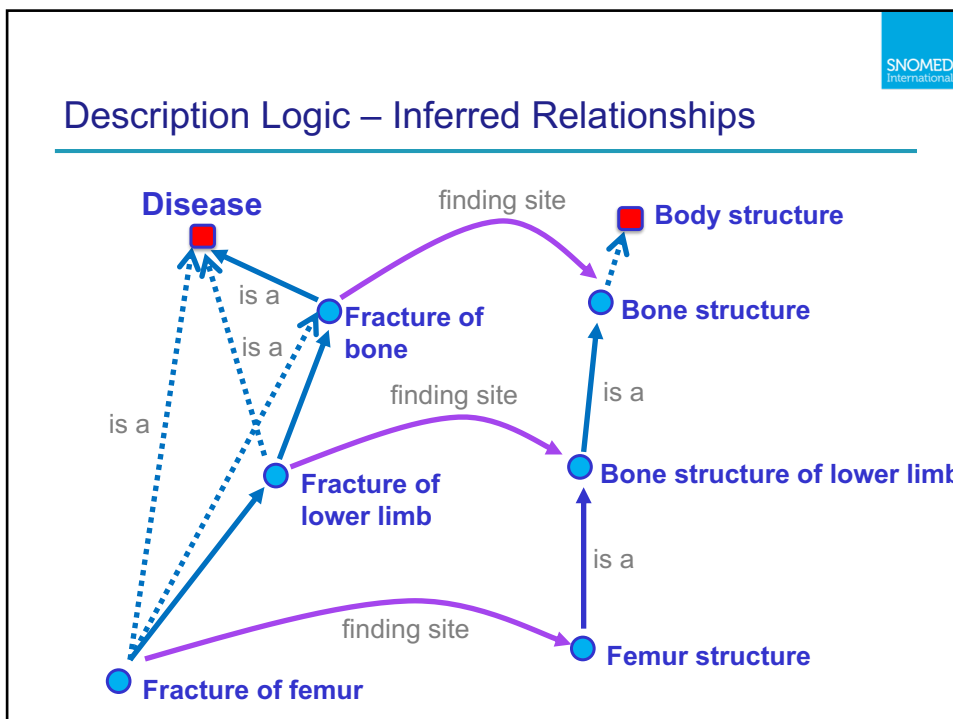
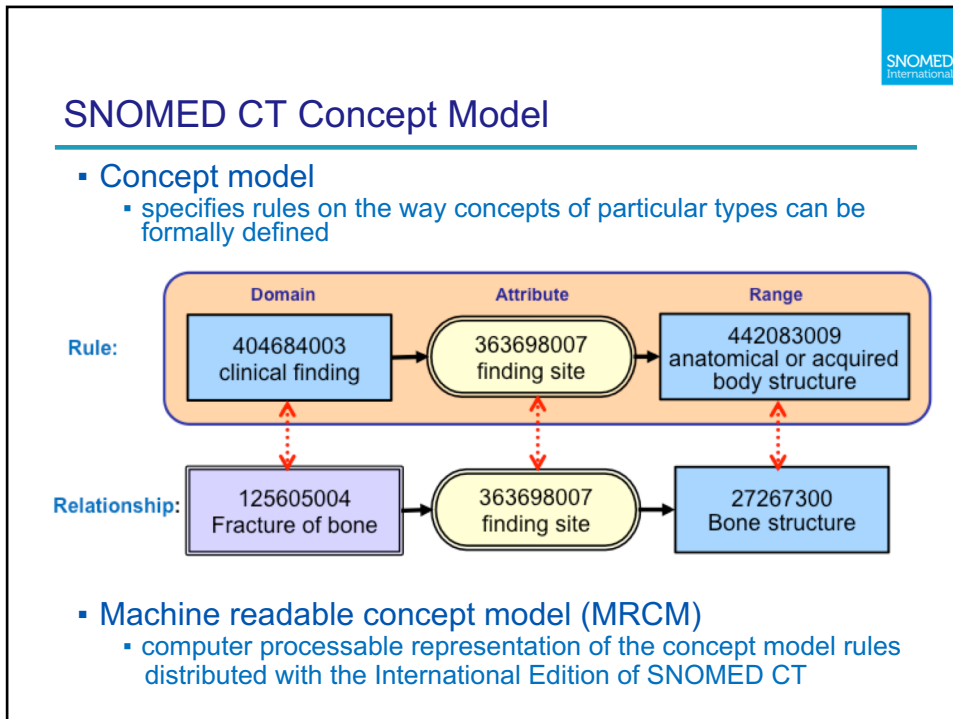
**Myocardial infarction (disorder)** ☆ ↕

SCTID: 22298006


22298006 | Myocardial infarction (disorder) |

- en Myocardial infarction (disorder)
- en Cardiac infarction
- en Myocardial infarction
- en MI - myocardial infarction
- en Heart attack
- en Infarction of heart
- en Myocardial infarct

Associated morphology → Infarct  
 Finding site → Myocardium structure










## SNOMED CT is Customizable

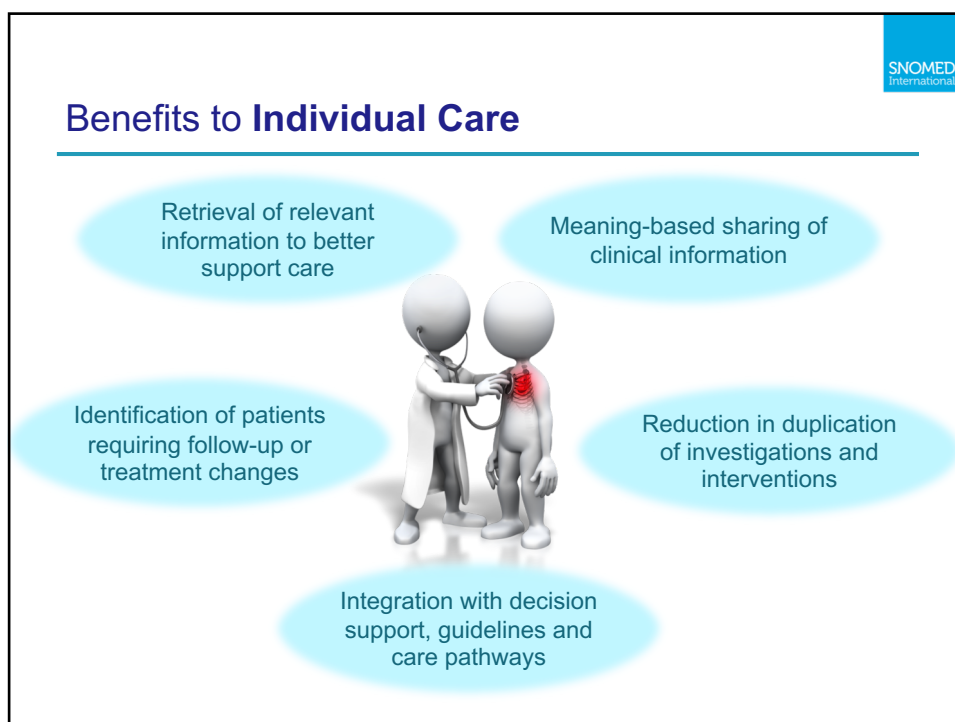
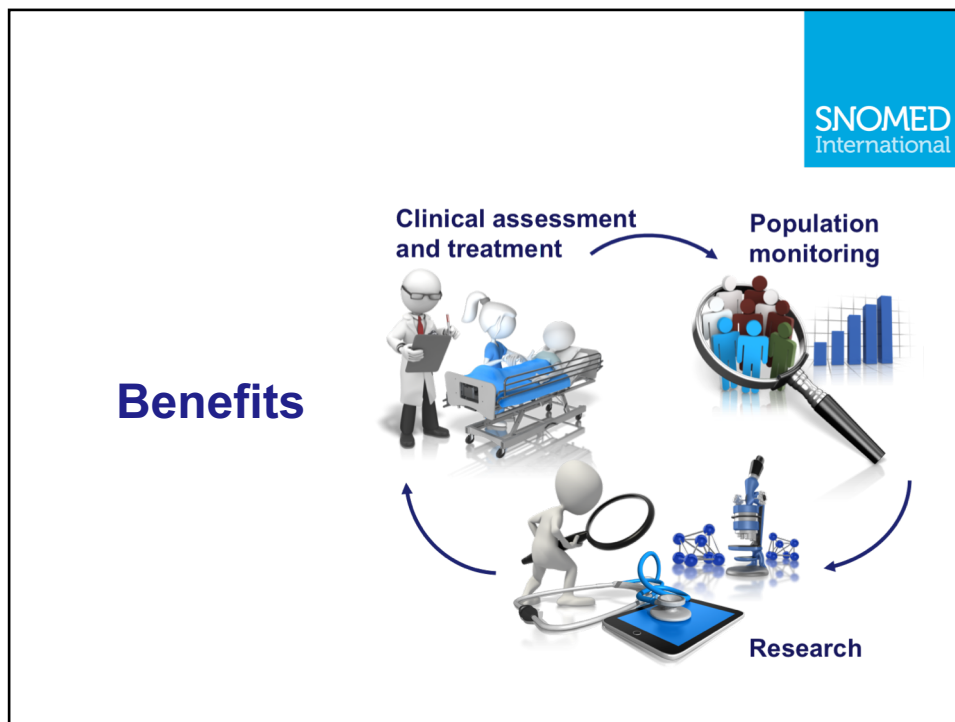
- SNOMED CT covers a broad scope at clinically appropriate levels of detail ... so it is large
- Reference Sets are a standard mechanism for customizing SNOMED CT for specific requirements
  - Supported customizations include
    - Language and dialect preferences
    - Specification of subsets of concepts for particular uses
    - Ordered list to assist efficient user interface design
    - Maps to or from other code systems




## SNOMED CT is Extendable

- SNOMED International permits its members and licensees to extend the International Edition with national or local content
  - Authorized organizations
    - Assigned a unique *extension namespace*
    - Can generate unique SNOMED CT identifiers for their own concepts, descriptions, relationships and reference sets
    - Can distribute these as part of their SNOMED CT Extension








## Benefits to **Population Care**


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Epidemiological monitoring and reporting

Audit of clinical care and service delivery



Systems that measure and maximize the delivery of cost-effective treatments and minimize the risk of costly errors




## Benefits to **Clinical Research**

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Identification of clinical trial candidates

Clinical care delivery planning



Planning for future service delivery provision

Research into the effectiveness of different approaches to disease management



SNOMED International

- An international not-for-profit organisation
  - Owned by Members
  - Governed by General Assembly of its Members
  - Funded by members based on national wealth
- Maintains and delivers SNOMED CT
  - Free use in Member territories
  - Low cost licenses for institutions in other countries

**Global Patient Set (GPS) released**

- Managed collection of existing SNOMED CT subsets
- Free for all users to support cross-border interoperability
- Includes
  - Unique identifiers
  - Fully specified names
  - Preferred terms in international English
  - Active/inactive status flags





## SNOMED International Support

- Website, communications and document library
- Business meetings and Expo
- Collaboration environment
- Advisory and project groups
- SNOMED CT education
- Content request service (CRS)
- Customer support management
- Vendor and clinical engagement
- Standards collaboration



## SNOMED International Support

- SNOMED CT tooling
  - SNOMED CT browser, mapping tool, refset management and translation tool, authoring platform, CRS
- Open source software development
  - e.g. Snowstorm - scalable SNOMED CT terminology server
- SNOMED International managed service



**GitHub**  
<https://github.com/IHTSDO>



## SNOMED International Members (April 2019)

 <b>Argentina</b>	 <b>Denmark</b>	 <b>Lithuania</b>	 <b>Singapore</b>
 <b>Austria</b>	 <b>Estonia</b>	 <b>Luxembourg</b>	 <b>Slovak Republic</b>
 <b>Australia</b>	 <b>Finland</b>	 <b>Malaysia</b>	 <b>Slovenia</b>
 <b>Belgium</b>	 <b>Hong Kong</b>	 <b>Malta</b>	 <b>Spain</b>
 <b>Brazil</b>	 <b>Iceland</b>	 <b>The Netherlands</b>	 <b>Sweden</b>
 <b>Brunei</b>	 <b>India</b>	 <b>New Zealand</b>	 <b>Switzerland</b>
 <b>Canada</b>	 <b>Ireland</b>	 <b>Norway</b>	 <b>United Kingdom</b>
 <b>Chile</b>	 <b>Israel</b>	 <b>Poland</b>	 <b>USA</b>
 <b>Cyprus</b>	 <b>Jordan</b>	 <b>Portugal</b>	 <b>Uruguay</b>
 <b>Czech Republic</b>	 <b>Kazakhstan</b>	 <b>Saudi Arabia</b>	



## SNOMED International Membership Benefits

- Free use of SNOMED CT and related products
- Membership of General Assembly
- Ability to create national extension and translation
- Access to global community of member countries
- Free new member induction
- Member education benefits
  - FREE Foundation Course for all students
  - Membership discount (50%) for all education courses
  - NRC access to 1 FREE enrolment in each course per year
  - NRC access to 1 FREE enrolment in each certification per year



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## Our Vision


By 2025 clinical terminologies will be used globally,  
which will result in better health and patient  
outcomes, supported by one language of health



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## Learning More About SNOMED CT





## Learning More About SNOMED CT

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### Expo 2019 tutorials

*Thursday*


11:00	Introduction to SNOMED CT	(90 min)
13:30	Intelligent Search and Data Entry	(90 min)
15:30	Data Analytics and Clinical Decision Support	(90 min)
15:30	An Introduction to Authoring	(90 min)

*Friday*

11:00	Developing Subsets and Reference Sets	(90 min)
13:30	Understanding SNOMED CT's Description Logic Enhancements	(90 min)

### Presentation streams


- A – Demonstrating implementation excellence
- B – Enhancing clinical practice
- C – Terminology leading practices



## Learning More About SNOMED CT

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- SNOMED E-Learning
  - <http://snomed.org/courses>
  - Formal Courses with Assessments (Enrolment fees apply)
    - Foundation Free to residents of Member territories
    - Implementation Discounts for residents of Member territories
    - Authoring Level 1 Discounts for residents of Member territories
  - Certification (Enrolment fees apply)
    - Authoring Level 1 Discounts for residents of Member territories
  - Learning Pathways
    - Data analysts
    - Developers
  - Presentation Library
    - Accessible to anyone with an account






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## Learning More About SNOMED CT

- SNOMED CT Document Library
  - <http://snomed.org/doc>
- Introductory Guides
  - Starter guide, vendor introduction guide, Member (NRC) guide
- Specifications and Technical Guidance
  - Release file specifications, computable language specifications, terminology and record services
- Practical Guides
  - Search      Decision Support
  - Data Entry   Reference Sets
  - Analytics    Extensions
- Explore SNOMED CT Content
  - <http://snomed.org/browser>



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## Any Questions?

## Enjoy the Expo!

