



The NUVA Extension to SNOMED CT

International Summit on Vaccine Coding & Standards

Bordeaux, 9 May 2025

Our Team du jour



Suzy Roy

Collaboration Specialist
& Research Lead



Dr Jim Case

Chief Terminologist



Peter Groves Williams

Technical Specialist



Rory Davidson

Chief Information Officer

About SNOMED International

**A not-for-profit organization
that owns and maintains
SNOMED CT**

*Headquartered in London
Virtual Workforce
Member dues based on GNI*

**The world's most
comprehensive clinical
terminology**

PRODUCTS

SNOMED CT,
IPS-Terminology,
14+ derivative products,
Global Patient Set, Maps,
Open-source tooling

SERVICES

Dedicated customer support,
Implementation support,
Translation, Education,
Product Documentation,
Guidance, Help desk

Member-focused

51 Members globally,
Continuous and active
stakeholder engagement



Our Members

Our 51 Members represent
1/3 of the world's population

EUROPE

Andorra
Austria
Belgium
Croatia
Cyprus
Czech Republic
Denmark
France
Estonia
Finland
Germany
Hungary
Iceland
Ireland
Lithuania
Luxembourg
Malta
Netherlands
Norway
Poland
Portugal
Republic of Slovenia
Slovak Republic
Spain
Sweden
Switzerland
United Kingdom

AMERICAS

Argentina
Belize
Canada
Chile
El Salvador
Jamaica
United States
Uruguay

ASIA PACIFIC

Australia
Brunei
Hong Kong, China
India
Indonesia
Kazakhstan
Malaysia
New Zealand
Republic of Korea
Singapore
Thailand

MIDDLE EAST & AFRICA

Israel
Jordan
Saudi Arabia
United Arab Emirates
Qatar



Members



Affiliates

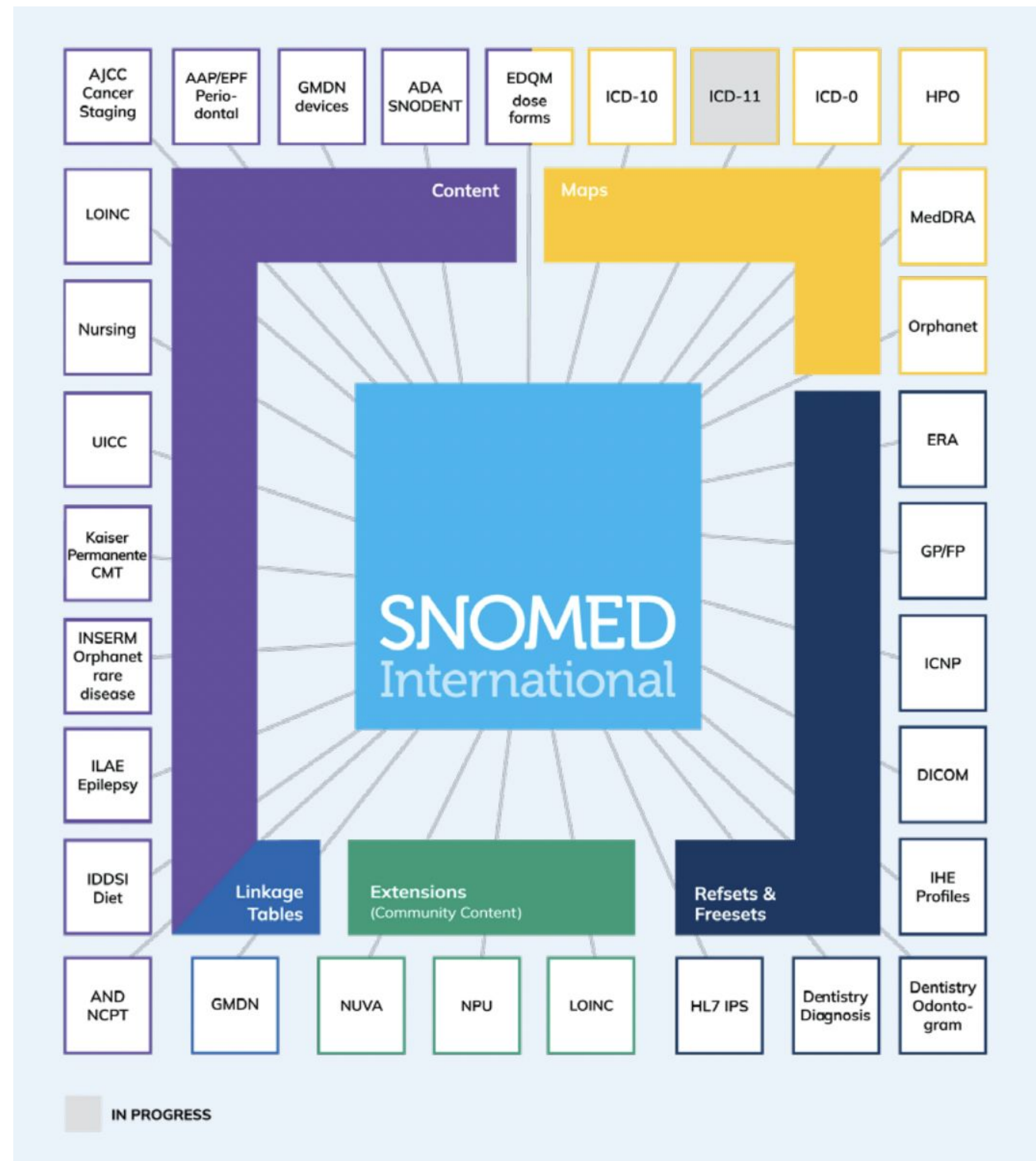
Last Updated: February 2025

Our Partners & Collaborations

SNOMED International continued to forge new partnerships, collaborations and alliances as part of the organization's efforts to harmonize healthcare terminology across multiple domains.

These include a mix of deliverable focused and strategic alliances.

 Joint Initiative Council



NUVA Extension

1

Collaborating with
SNOMED
International

2

Goals and
Objectives

3

What is it & How is
it produced?

4

Working with the
NUVA Extension

5

Known Issues

6

Next Steps

Goals and Objectives

- Strategic Objective for SNOMED International
- Simplify Integration for Implementers
- Increase content coverage
- Benefits of collaboration
 - Quality Improvement (both sides!)
 - Cross pollination of ideas - eg classification
 - Opportunity for closer alignment of meaning
 - Building relationships and understanding

What is the NUVA Extension?

- Firstly, what is SNOMED CT?
- Extension to a specific version of SNOMED CT International Edition.
- Active vaccines are children of 787859002 [Vaccine product (medicinal product)]
- Each NUVA concept is also expressed as a new SNOMED CT concept, featuring dual identifiers
- Supplied NUVA Valence hierarchy informs *calculated* Vaccine hierarchy

- ▼ ☰ Live attenuated measles and rubella vaccine (vaccine)
 - ● ECOLARIX (vaccine)
 - ● EOLARIX (vaccine)
 - ● LIRUBEL (vaccine)
- ▼ ☰ Live attenuated measles, mumps and rubella vaccine (vaccine)
 - ● Immravax (vaccine)
 - ● IMMU ORR (vaccine)
 - ● IMOVAX R.O.R. (vaccine)
- ▼ ☰ Live attenuated measles, mumps, rubella and chickenpox vaccine (vaccine)
 - ● PRIORIX-TETRA (vaccine)
 - ● PROQUAD (vaccine)
 - ● LM - 3 RIT (vaccine)
 - ● M-M-R II (vaccine)
 - ● M-M-RVAXPRO (vaccine)
 - ● MMR (vaccine)
 - ● MORUPAR (vaccine)
 - ● PLUSERIX (vaccine)

Vaccine Hierarchy

Transformation Process

- Download and import nuva_ivci.rdf
- Each vaccine and valence expressed as a new SNOMED CT concept
- Valence parents (“is a type of”) specified in RDF
- Abstract vaccines become “Sufficiently Defined”
- Non-abstract (branded) vaccines are “Primitive”
- Check for required changes against SI Authoring Platform
- Produce processing report
- SNOMED International tooling: classification, validation, authoring, reporting, publish, browse

Parents

➤  Product containing immunoglobulin (product)

Anti-tetanus immunoglobulin (product)

SCTID: 6231002000109

NUVA code identifier: VAC0497

6231002000109 | Anti-tetanus immunoglobulin (product) |

en Anti-tetanus immunoglobulin (product)
en Tetanus immunoglobulin, unspecified

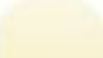
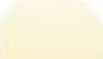

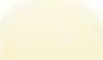

Plays role → Passive immunity stimulant therapeutic role

Has valence → Tetanus immunoglobulin

Has active ingredient → Immunoglobulin

Passive Vaccines

Children (5)

-  BAYTET (product)
-  GAMMATETANOS (immunoglobuline) (product)
-  HYPERTET (product)
-  TETAGAM P (immunoglobuline) (product)
-  TIG (product)

Working with the NUVA Extension

Expression Constraint Language

```
* {{ C moduleId = 11002000107 }}
```

```
< 787859002|Vaccine product| {{ C moduleId = 11002000107 }}
```

```
< 31002000103 |Valence (valence)|
```

```
< 763158003 |Medicinal product|: 766939001 |Plays role  
(attribute)| = 871530006 |Passive immunity stimulant therapeutic  
role|
```

```
< 763158003 |Medicinal product (product)| : 41002000106 |Has  
valence (attribute)| = *
```


Enter an ECL query (ECL Version: 2.0)

Clear

Help

< 787859002|Vaccine product| {{ C moduleId = 11002000107 }}

ECL Builder

Execute

tetanus

Description type: ▾

Language Refsets ▾

Modules ▾

Results: Found 298 concepts

Concept	Preferred Term	Id
TETANUS VACCIN (vaccine)	TETANUS VACCIN	6711002000108
HUMOTET-ANTI TETANUS (vaccine)	HUMOTET-ANTI TETANUS	3691002000103
VACCIN TETANIQUE PASTEUR (vaccine)	VACCIN TETANIQUE PASTEUR	1291002000104
TETAVAX (vaccine)	TETAVAX	1681002000100
ANATETALL (vaccine)	ANATETALL	3031002000107
LTEANAS IMUNA (vaccine)	LTEANAS IMUNA	4001002000103
T-IMMUN (vaccine)	T-IMMUN	5051002000103
ANATOXAL TE (vaccine)	ANATOXAL TE	5081002000109


```
{
  "resourceType" : "Immunization",
  "id" : "1337-c0de-fac3-cafe-5eedf00dace1",
  "status" : "completed",
  "vaccineCode" : {
    "coding" : [{
      "system" :
        "https://smt.esante.gouv.fr/terminologie-nuva",
      "code" : "VAC0086"
    },
    {
      "system" : "http://snomed.info/sct/",
      "code" : "1681002000100"
    }
  ],
  "text" : "TETAVAX"
}
```



FHIR Coding

Known Issues

- Valence is currently incompatible with “Has active ingredient”
- No “error” level failures
- 9370 warnings (!) relating to descriptions
- Monovalent vaccines have polyvalent descendants

Next Steps

- Agree a production schedule
- Documentation still a “Work in Progress”
- Include international translations
- Review use of “has active ingredient” and “has valence”
- Address or silence validation warnings
- Automation

Fin Questions?





Our --- Mission

SNOMED International sustainably produces global healthcare vocabulary and services that enable the clear and meaningful exchange and analysis of health information for all.

--- Our Vision

By 2030 Clinical Terminologies will be used globally, which will result in better health and improved patient outcomes, supported by one language of health.
