



Australian Government
Australian Digital Health Agency

Introduction to the Australian Medicines Terminology



My Health Record

Acknowledgements

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The Australian Digital Health Agency

The Australian Digital Health Agency is funded by all Australian Governments. It designs and operates national digital health services and set data standards that:

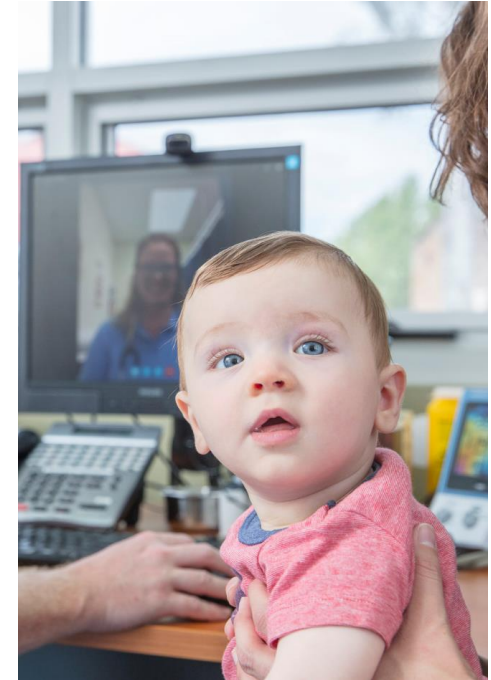
- Give consumers more control of their health and care when they wish it
- Connect and empower healthcare professionals
- Promote Australia's global leadership in digital health and innovation

“ *When patients move between care settings, the absence of complete and up-to-date medication data can contribute to instances of care becoming high risk, resulting in medication misadventures and unnecessary hospital readmissions*

Pharmacy Guild of Australia, submission to National Digital Health Strategy 2017

“ *The value of utilising pharmacists in digital health initiatives comes not only from the provision of dispensing histories but mainly from pharmacists using their unique skills and medicines expertise to meaningfully engage with the information contained in digital health records... To ensure the safe, effective and judicious use of medicines*

Pharmaceutical Society of Australia, submission to National Digital Health Strategy 2017



About the NCTS

- The National Clinical Terminology Service (NCTS) operates as the Australian National Release Centre for SNOMED International and has been a member country of that organisation since its establishment in 2007.
- The purpose of the NCTS is to **facilitate** and **support** the **correct use** of national clinical terminologies within healthcare organisations and systems in Australia.
- Our **vision** is *“to be the first preference for terminology solutions by all healthcare organisations and implementers.”*
- This is achieved by **ensuring** the terminologies, tools and professional services are **relevant** and **fit for purpose** either by direct management or through relationships with other organisations and international standards bodies.
- Our work is delivered under the Interoperability Program of the Agency COAG funded work plan.

OUR CORE PRINCIPLES

- 1 | EXPERTS IN HEALTH TERMINOLOGY
- 2 | RIGOROUS FOCUS ON QUALITY
- 3 | FOSTERING A COMMUNITY
- 4 | RESPONSIVE TO CUSTOMERS NEEDS
- 5 | SUCCESS THROUGH COLLABORATION

Introduction to clinical terminology

Concepts are more than *words*

COLD

chronic **o**bstructive lung **d**isease

cold (sensation/temperature)

common **cold**

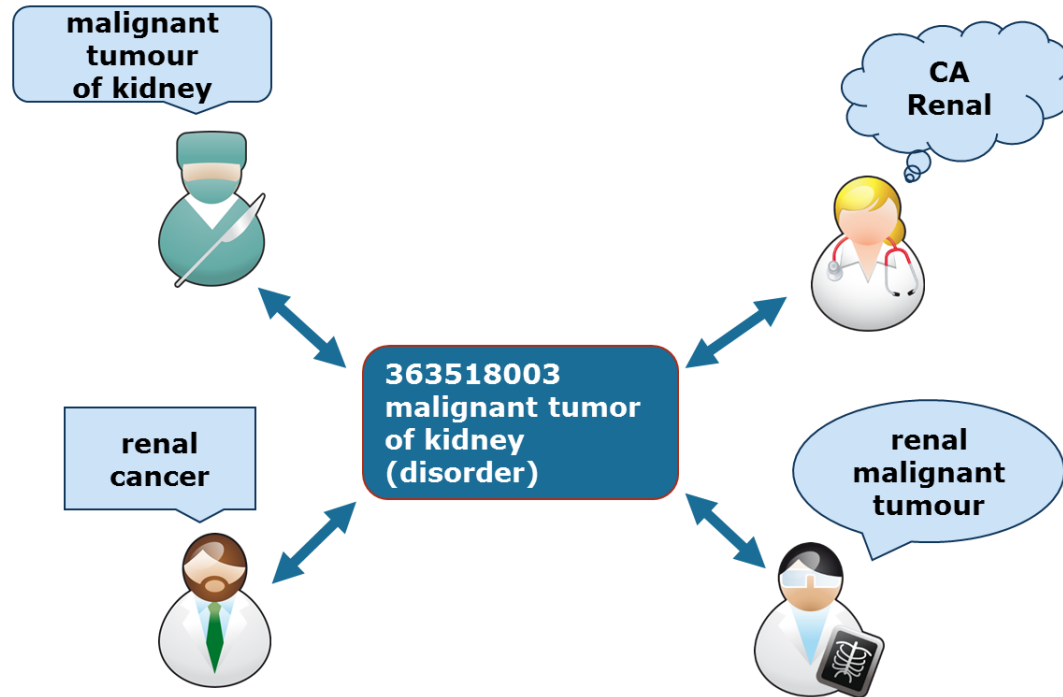


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Communication in healthcare



Effective communication is challenging

- To ensure that the correct intent of the author of a message is captured and communicated, it is important to:
 - Understand meaning
 - Understand context
- This applies to:
 - Computer systems
 - Humans



Why clinical terminology?

To best utilise clinical systems, computing tools and apps used in healthcare we need computable data; this means coded and structured data.

Terminology is that coded, structured data

It provides a foundation for successful delivery and realisation of the benefits of many of the national digital health strategic priorities¹ including:

- Health information that is available whenever and wherever it is needed
- Health information that can be exchanged securely
- High-quality data with a commonly understood meaning that can be used with confidence
- Better availability and access to prescriptions and medicines information

¹ Australian Digital Health Agency. Australia's National Digital Health Strategy: Australian Digital Health Agency; 2017 [Available from: [https://www.digitalhealth.gov.au/about-the-agency/publications/australias-national-digital-health-strategy/ADHA-strategy-doc-\(2ndAug\).pdf](https://www.digitalhealth.gov.au/about-the-agency/publications/australias-national-digital-health-strategy/ADHA-strategy-doc-(2ndAug).pdf)]

What is clinical terminology?

A structured vocabulary used in clinical practice, implemented in software applications

- Standardised naming and identification of those concepts relevant to healthcare
- Relationships between concepts to provide context to meaning

Clinical terminologies enable:

- Communication of information without loss of detail or change to meaning
- Accurate recording of statements about the health and health care of an individual patient
- Retrieval of those statements to express meaning at various levels of abstraction for clinicians, patients, researchers or organisations
- Provides a consistent way of indexing, storing, retrieving and aggregating clinical data from structured, computerised clinical records

Australian Medicines Terminology overview

AMT overview

- AMT is a systematically organised, computer readable collection of medicinal terms
- Modelled according to international terminology SNOMED CT
- Part of SNOMED CT-AU (Australian edition of SNOMED CT)
- For use by humans and computers
- Delivers standardised identification of brand (trade) products and equivalent generic medicines along with associated components
- Seeks to represent definitional knowledge
- Standard naming conventions defined by editorial rules
- Evolving terminology (not static)

AMT structure

The AMT is a medicines terminology that consists of:

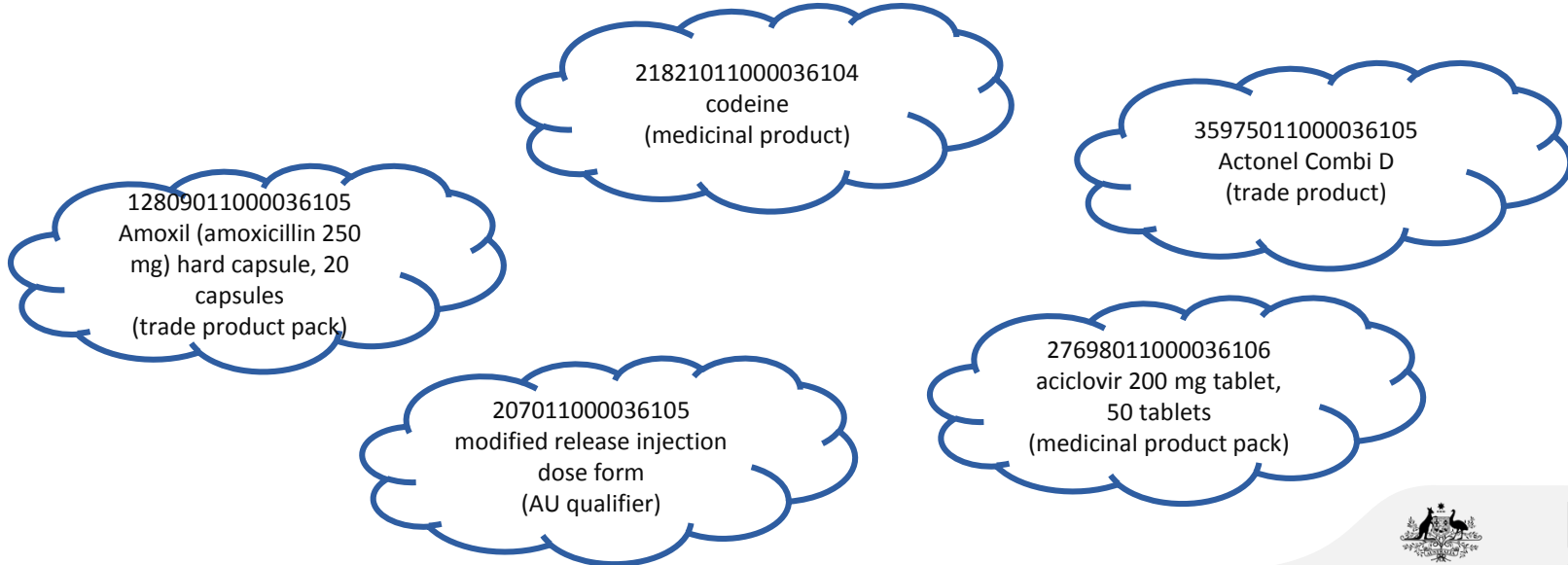
- **Concepts** – designed to cover medicines and their defining attributes
- **Descriptions** – human readable terms or names assigned to concepts
- **Relationships** – links concepts within AMT
- Unique code for every component
- Comprehensive history tracking
- Extensions (reference sets)



How it all fits together

Concepts

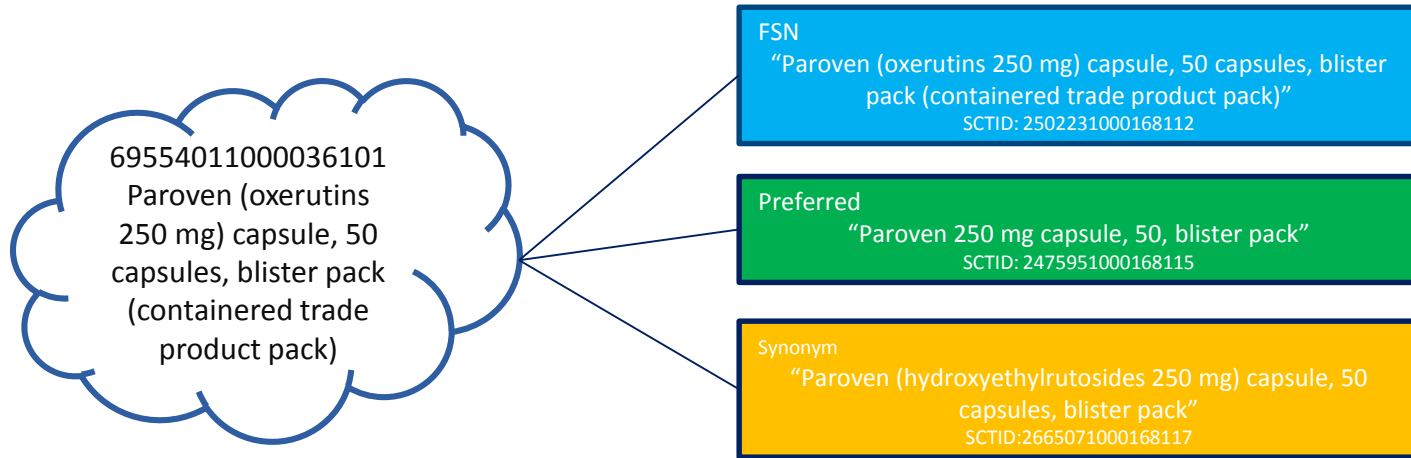
- Are objects of thought
- Designated by a unique code
- Designed to cover medicines and their defining attributes



How it all fits together

Descriptions

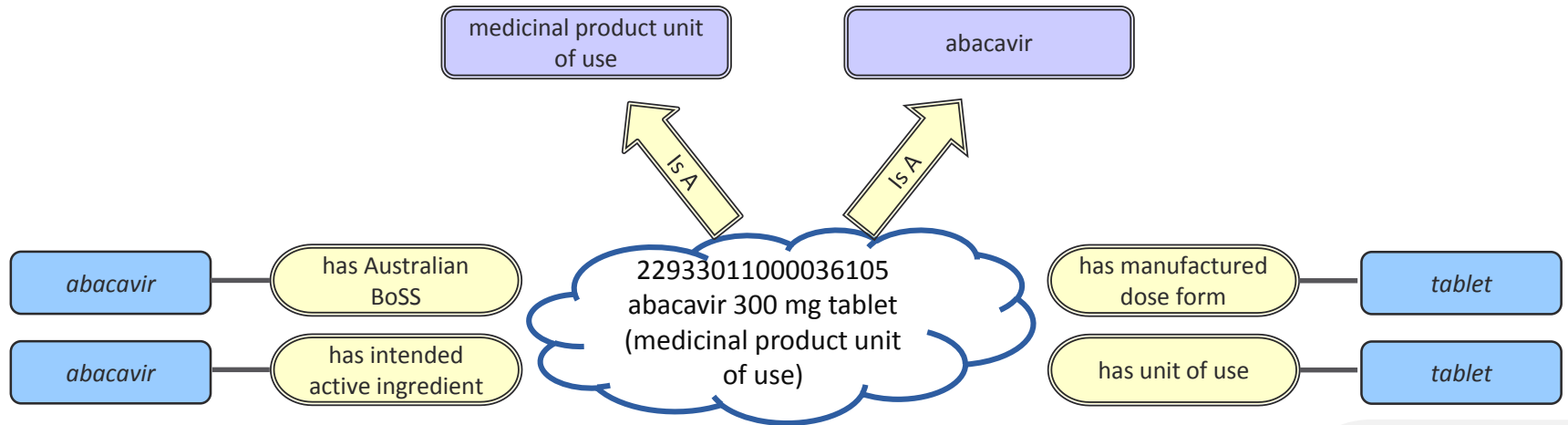
- Human readable terms or names assigned to concepts
- Fully Specified Name (FSN) = Unambiguous description
- One or more other descriptions – at least one Preferred Term and optional synonyms



How it all fits together

Relationships

- Link concepts within SNOMED CT
- Facilitate unambiguous meaning
- Create hierarchies which aid navigation and retrieval



AMT is not...

- A classification system
- Memorisable – meaningless identifiers
- Just for human readership
- Able to be printed out and used like a book
- Replacing or displacing other instruments
 - Must be used in conjunction with non-terminology products to deliver a full-fledged medication management system e.g. knowledge bases and clinical guidelines



AMT scope, content and use cases overview

AMT scope

The scope of the AMT is to include medicines that are available in Australia for the treatment of human patients.

The medicines addressed include:

- Majority of Registered (AUSTR) items from the TGA's Australian Register of Therapeutic Goods
- Many Listed (AUSTL) items from the Register
- All PBS and RPBS items incl. dressings, diagnostics and nutritional supplements
- Other items as requested by users, e.g.
 - Non-approved therapeutic goods (such as Special Access Scheme)
 - Some extemporaneous preparations (such as Standard Formulae included in PBS)

Items out of scope include:

- Clinical trial drugs
- Locally manufactured or repacks
- Compounded medicines or extemporaneous preparations for individuals
- Blood & blood derivatives
- Radiopharmaceuticals
- Veterinary medicines
- Overseas registered medicines

AMT content



Australian product

Describes the 'seven notable classes' that includes medicinal and trade products.

- Medicinal product
- Medicinal product unit of use
- Medicinal product pack
- Trade product
- Trade product unit of use
- Trade product pack
- Containered trade product pack

Australian qualifier

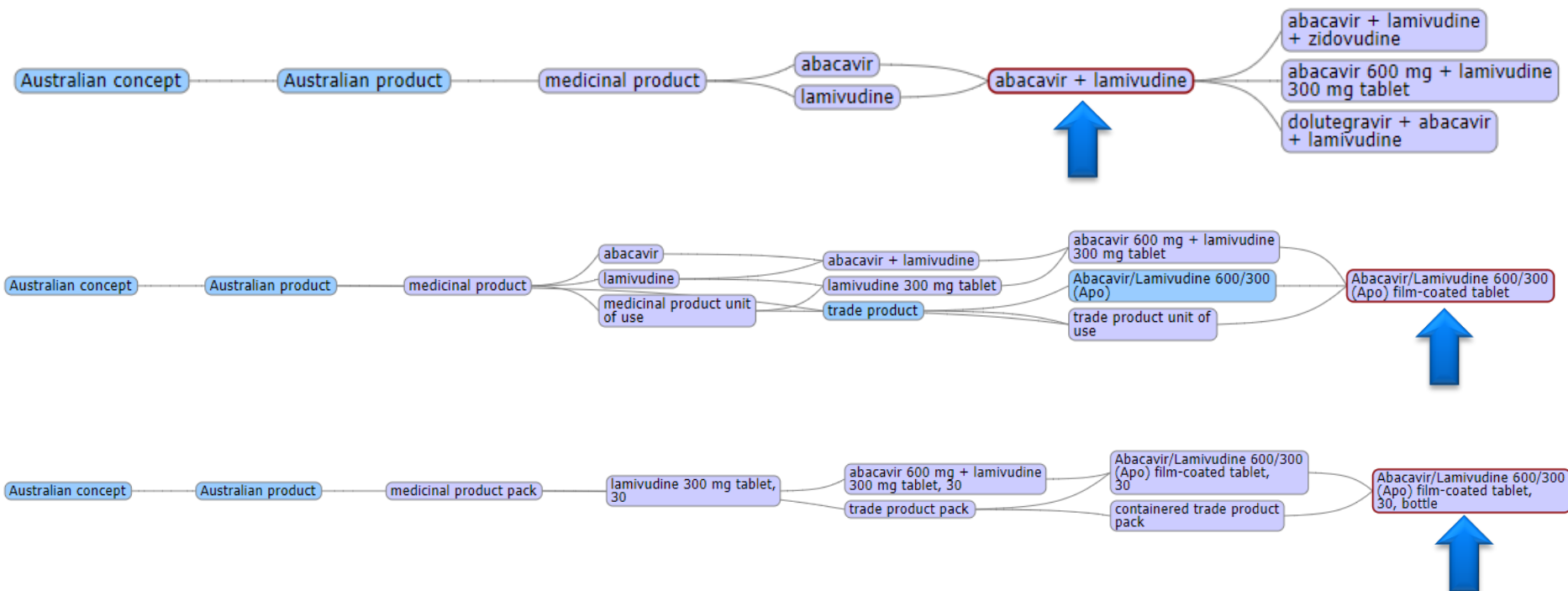
Provides values for AMT attributes.

- container type
- form
- unit of measure
- unit of use

Australian substance

Medicinal substances that are constituents of AMT products.

Example content – AMT products



Example content – AMT substances

Australian concept

Australian substance

medicinal substance

paracetamol

Australian concept

Australian substance

medicinal substance

candesartan cilexetil

Australian concept

Australian substance

medicinal substance

codeine phosphate hemihydrate



Medicines terminology or medicines information?

- There is a wide range of knowledge about medicines that is not included in a medicines terminology
- Terminology information must always necessarily be 'true'
- Knowledge information in contrast, may change over time
- Knowledge can be linked to product descriptions through the terminology



Terminology or information?

- Product name, e.g. Panadol ✓
- Clinical indication ✗
- Pack size ✓
- Strength ✓
- Dose Form ✓
- Unit of use ✓
- Adverse reaction ✗
- Relationships between concepts ✓
- Availability ✗
- Synonyms ✓
- Identifier code ✓
- Drug interaction ✗
- Allergy class ✗
- Dose ✗
- Generic name, e.g. Paracetamol ✓
- Contraindication ✗
- Subsidy ✗
- Container ✓
- Price ✗



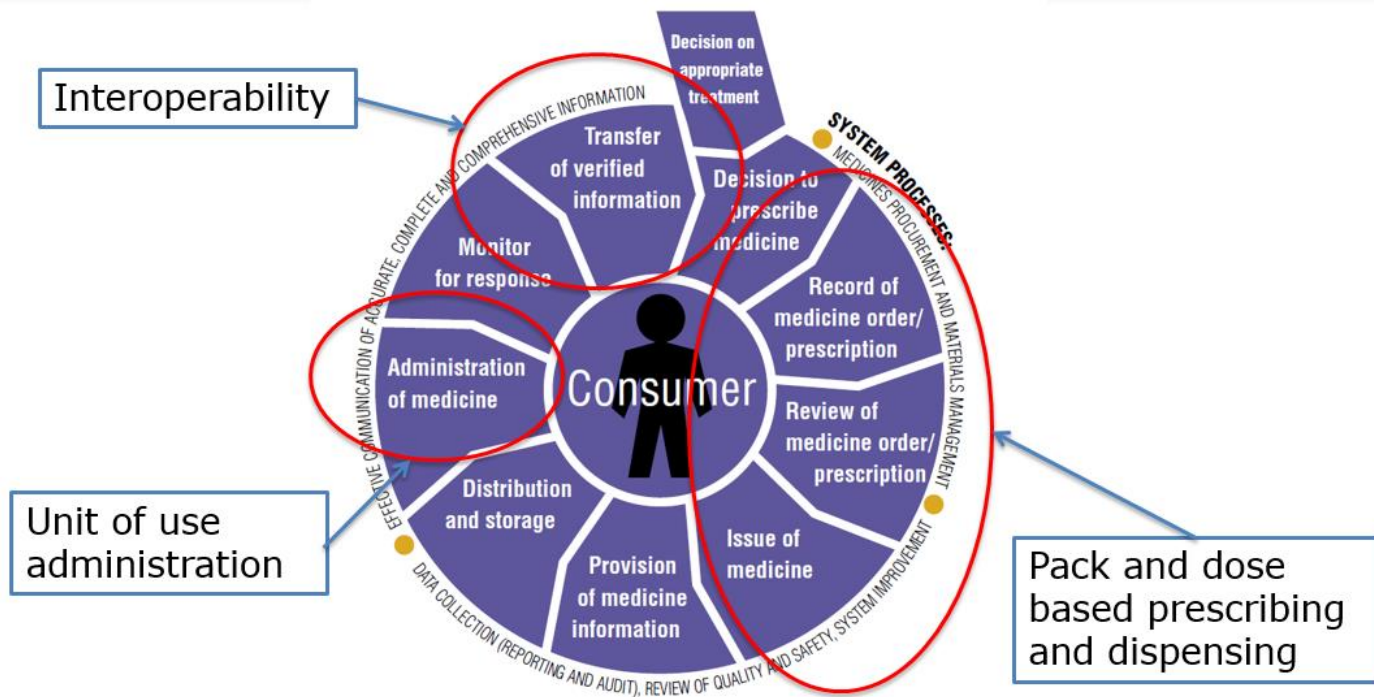
Current AMT use statement

Identifies all commonly used medicines in Australia and can be implemented in clinical information systems to support:

- Prescribing
- Recording
- Medicines review
- Issuing – including dispensing
- Medicines administration
- Transfer of information

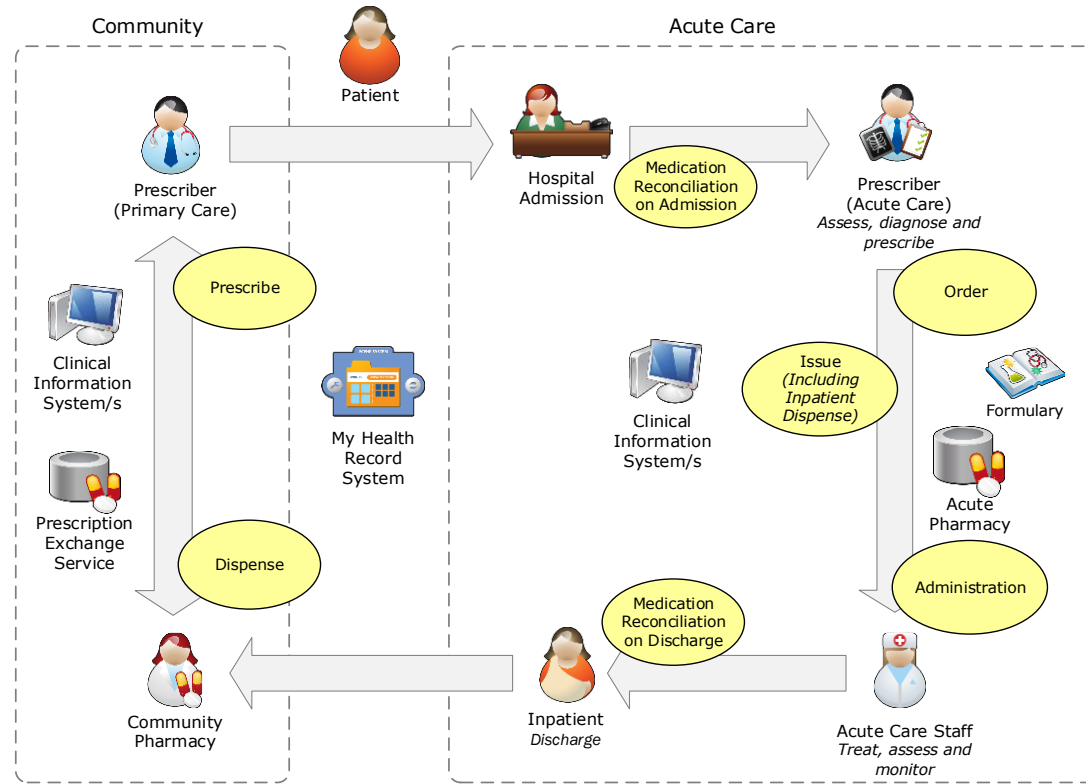


AMT supports various medication management cycle¹ steps



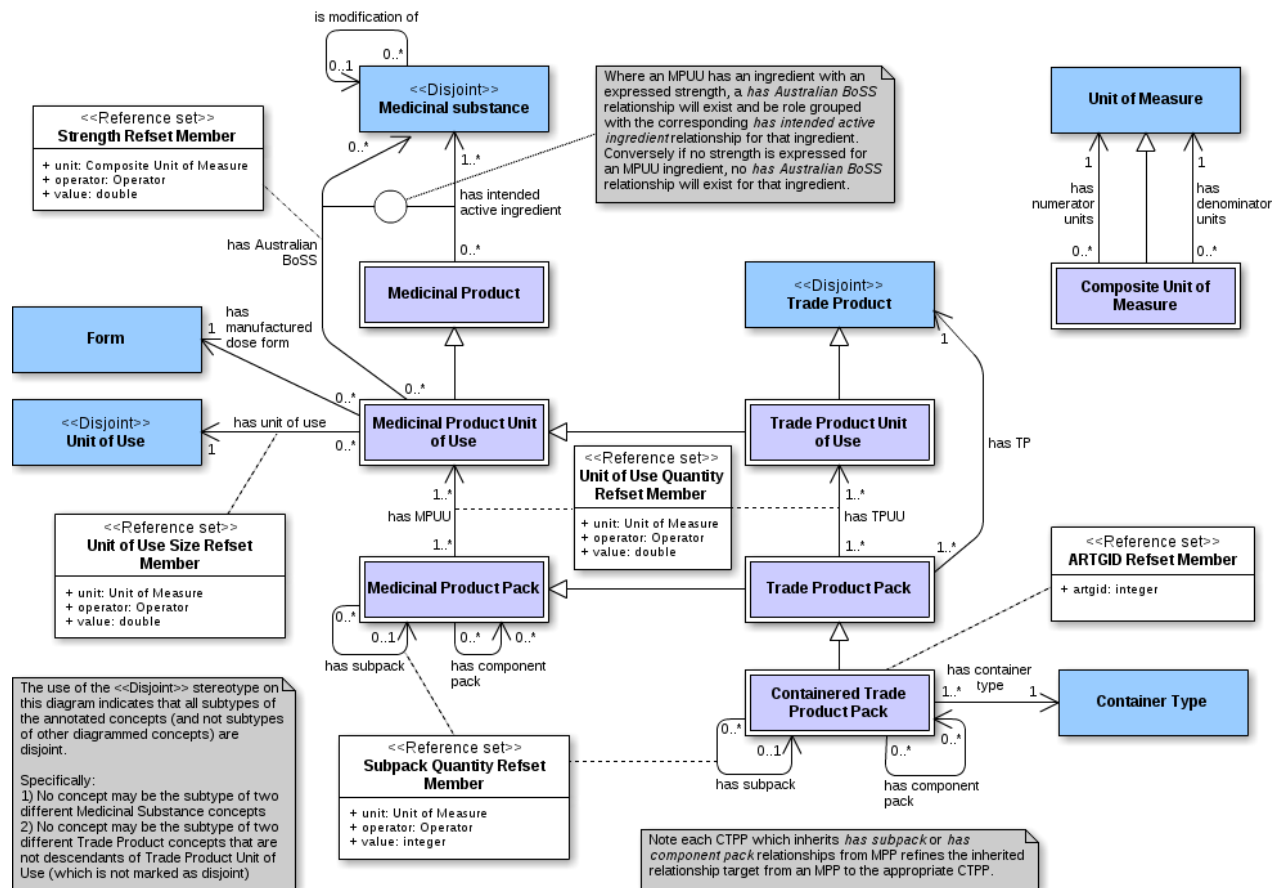
¹ Adapted from the Australian Pharmaceutical Advisory Council's medication management cycle (APAC ceased being active in 2006).

High level use case

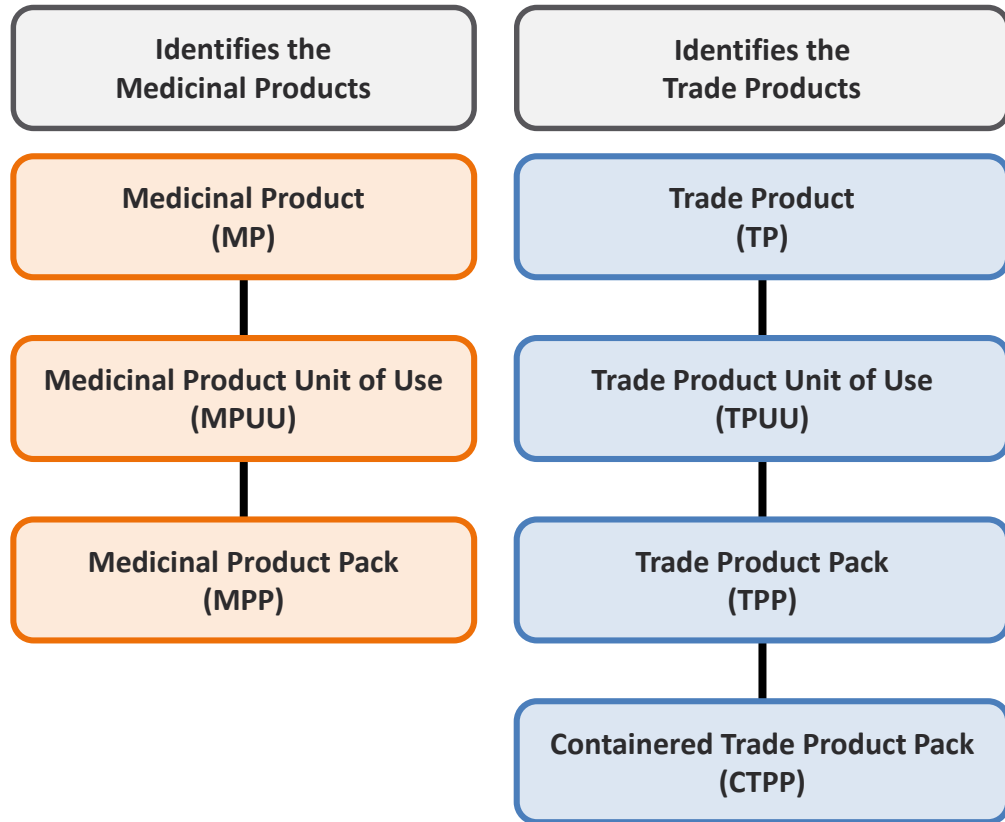


AMT model and overview of components

AMT model



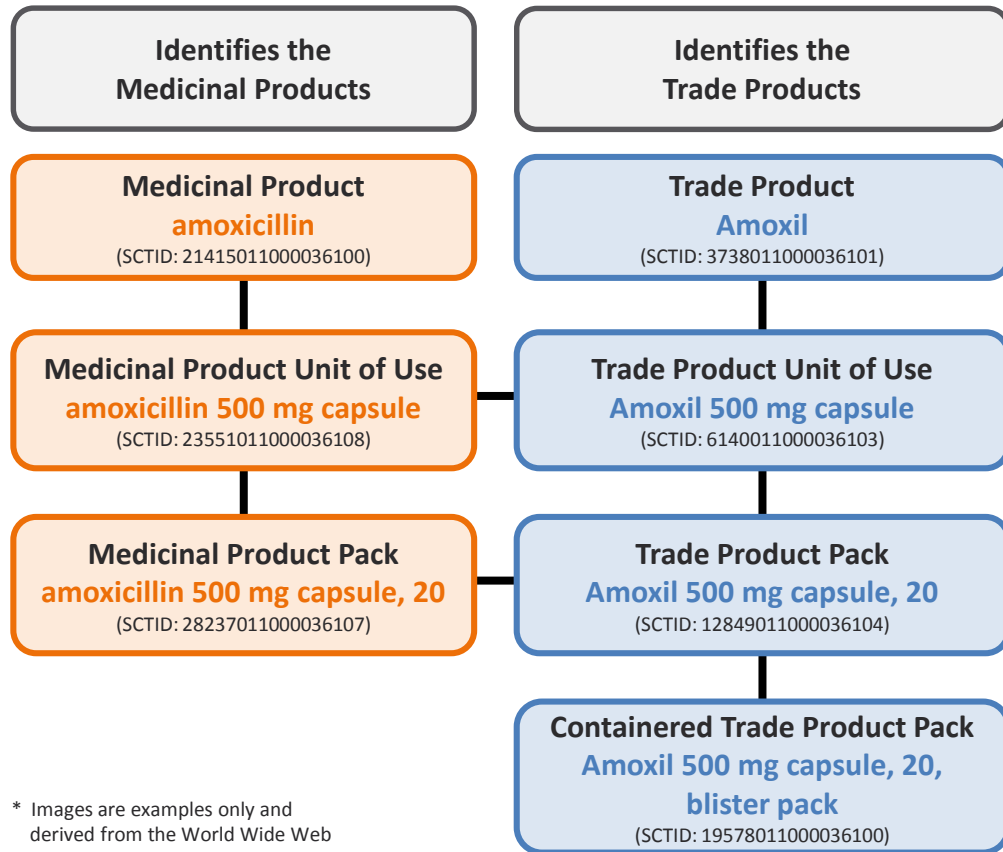
AMT model – products



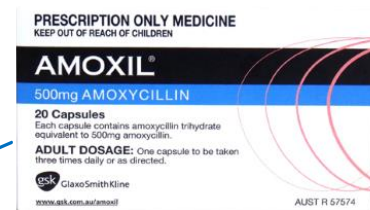
Notable concepts (and examples) included in the AMT model are shown at left. They represent:

- The medicinal (generic) products and trade products.
- Different levels of granularity, i.e. ingredient, strength, dosage form, pack size, container type to support different use cases.

Amoxil example

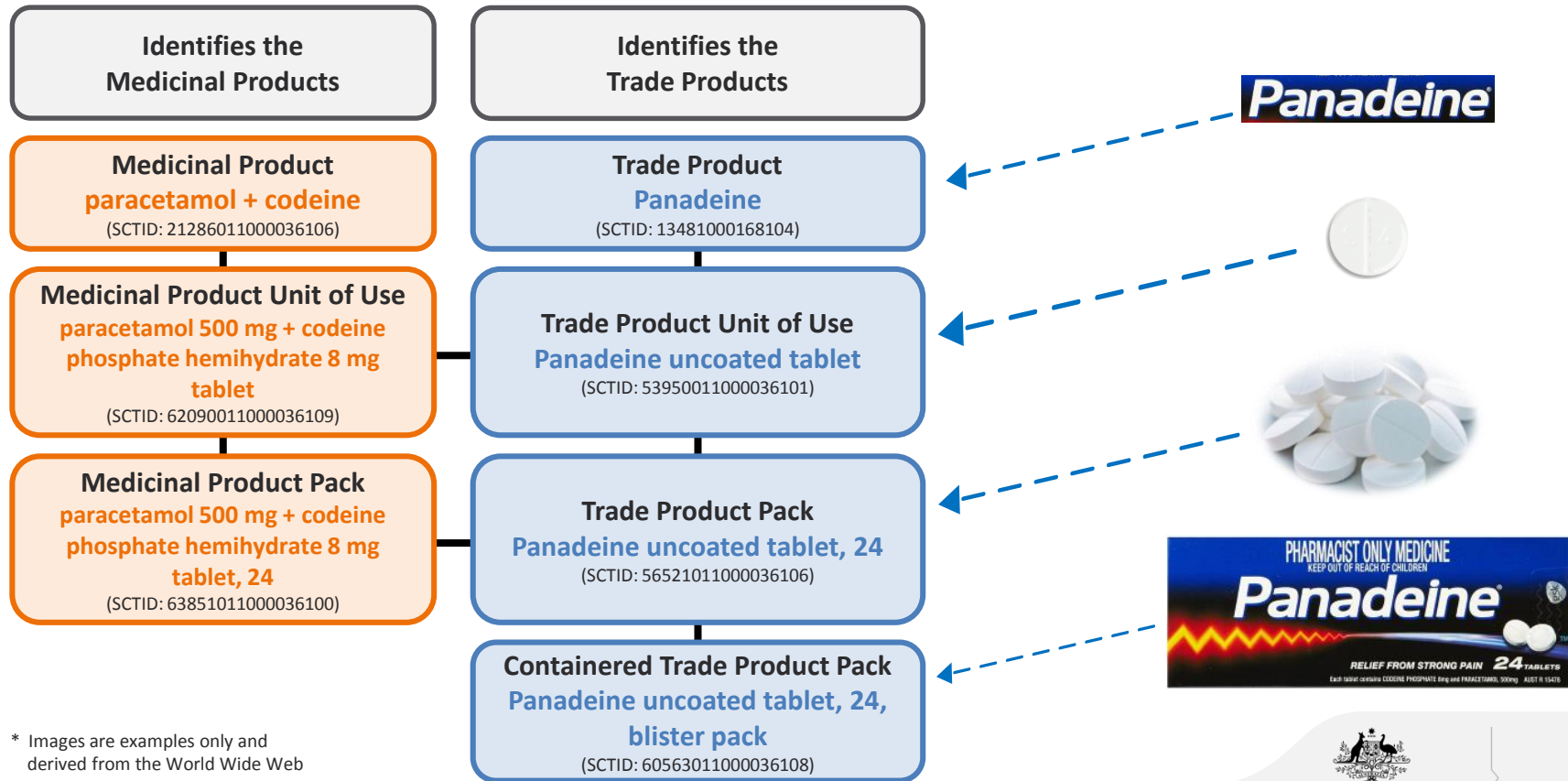


AMOXIL®



* Images are examples only and derived from the World Wide Web

Panadeine example

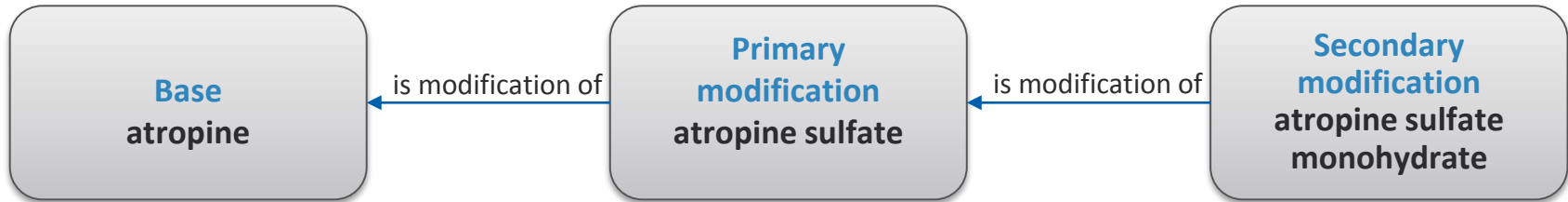


* Images are examples only and derived from the World Wide Web

AMT substances

- Concepts that represent the chemical entities that may act as ingredients of therapeutic goods.
- Identify chemical elements, compounds, and mixtures.
- Can be a base or a modification of the base.

Example:



Medicinal product (MP)

**Medicinal Product
(MP)**

diclofenac

- An abstract representation of the intended active ingredients or substances (devoid of strength and form), which when formulated as a therapeutic good, are intended for use in treating or preventing disease in humans.

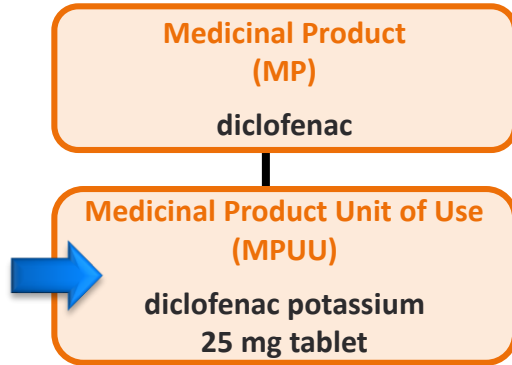


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Medicinal product unit of use (MPUU)



- An abstract concept represented by the associated MP's ingredient name, strength, form and, where appropriate, the unit of use.
- The MPUU may represent the name of a primary or secondary modified base for safety reasons or where this is the Australian BoSS representation of the active ingredient.
 - BoSS - Basis of Strength Substance – is defined as part of an MPUU
 - The BoSS is the active ingredient describing the product strength as defined in the product registration details and Product Information/Consumer Medicine Information documents.
 - It may differ to the MP (as example pictured).

Medicinal product unit of use (MPUU) - BoSS

Products

1. VOLTAREN RAPID 25 Diclofenac Potassium 25mg tablet

Product Type

Single Medicine Product

Effective date

11/02/2013



Ingredients

Voltaren Rapid 25 tablets contain 25 mg diclofenac potassium as the active ingredient.

- Product strength is “25 mg”.
- So in this case the BoSS is “diclofenac potassium”, not the base ingredient “diclofenac”

Active Ingredients

Diclofenac potassium

25 mg

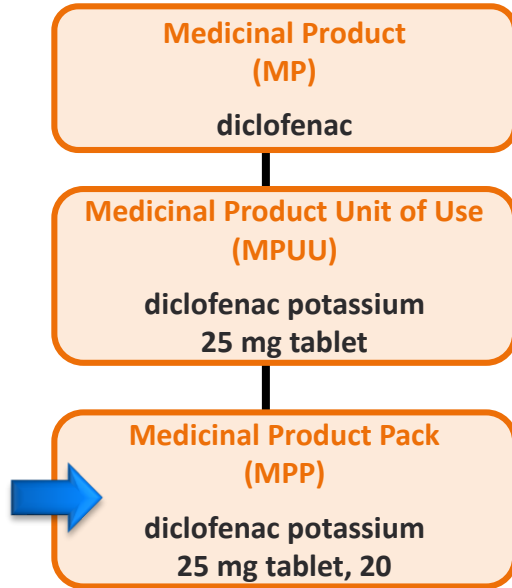


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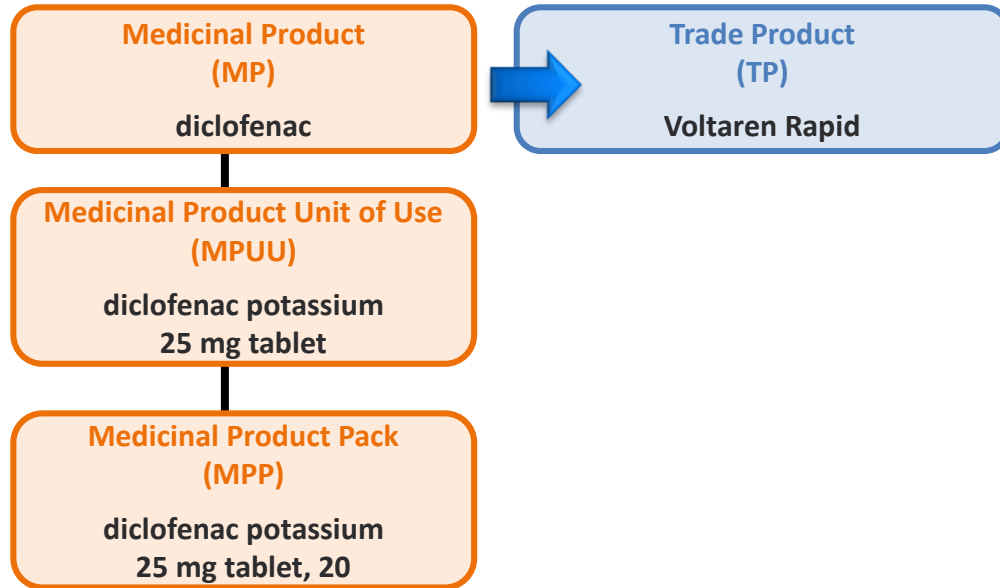
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Medicinal product pack (MPP)



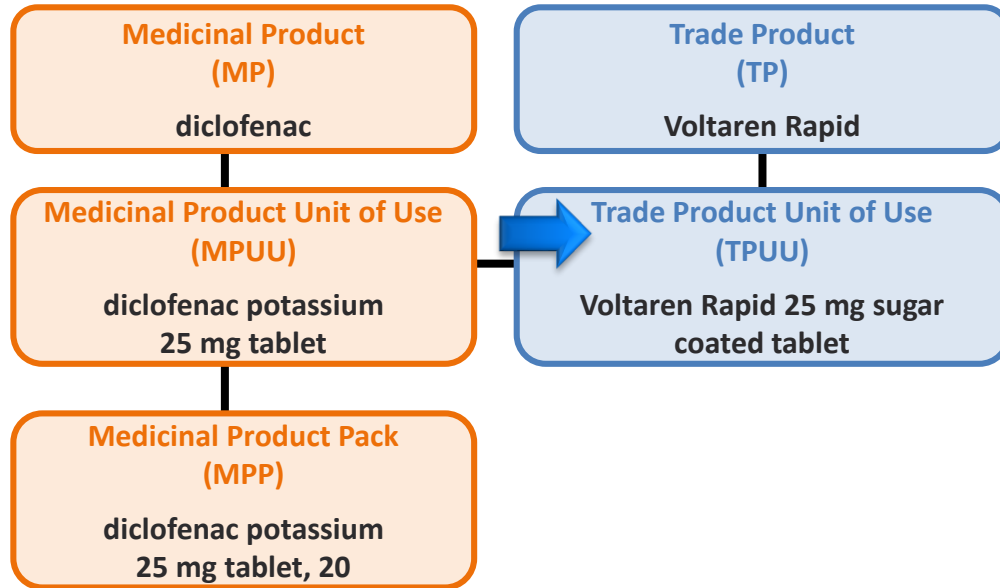
- An abstract concept of a marketable medicinal entity available for patient use, devoid of brand and container type.
- MPPs represent the properties of one or more quantitatively equivalent Trade product packs (TPPs).
- Quantitatively equivalent TPPs are those that have the same base active ingredient (or the same precise active ingredients, where the modified base is therapeutically necessary), as well as the same strength, dose form and pack size.

Trade product (TP)



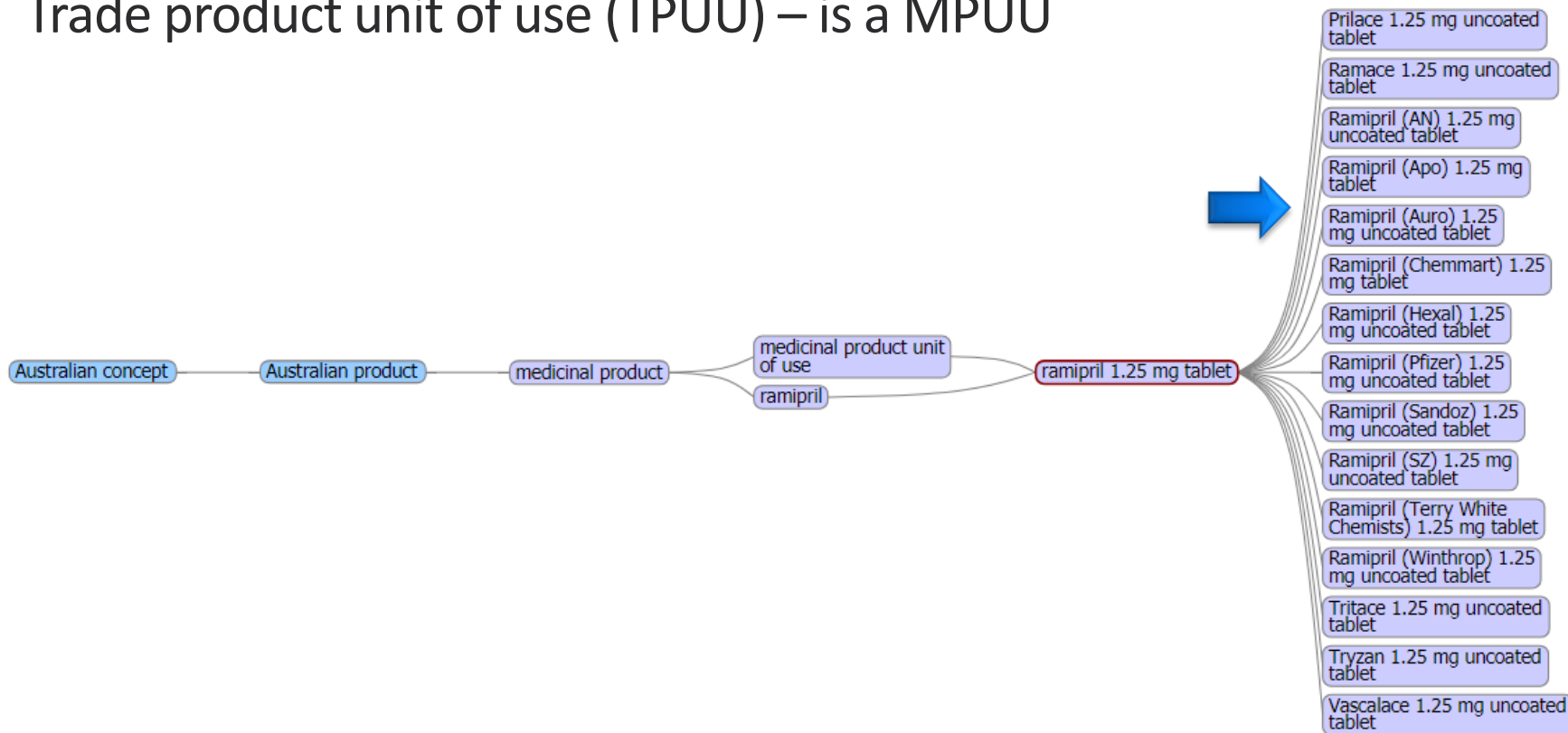
- Represents the product brand name, for either single component products, or components of multi-component products. The TP may also include any additional detail necessary for identification.
- Used to define the trade side of the 'notable concepts' and distinguish them from the generic side.
- Example TPs:
 - Voltaren
 - Voltaren Emulgel
 - Voltaren Ophtha
 - Voltaren Osteo
 - Voltaren Rapid

Trade product unit of use (TPUU)

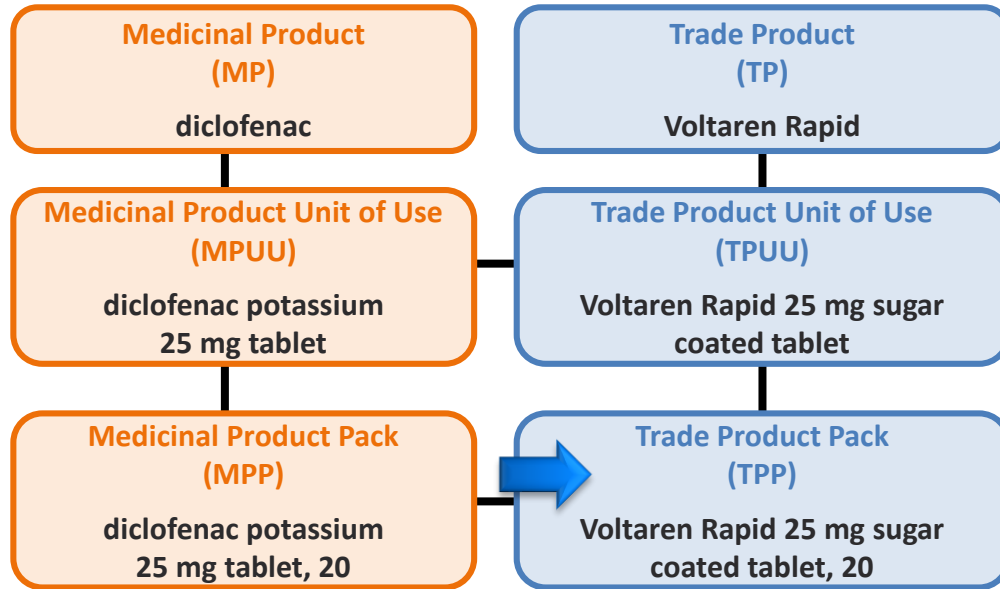


- A single dose unit of a finished dose form (unless the product is presented as a continuous dosage form, for example, liquid or cream) that contains a specified amount of an active substance and is grouped within a particular Trade Product.

Trade product unit of use (TPUU) – is a MPUU

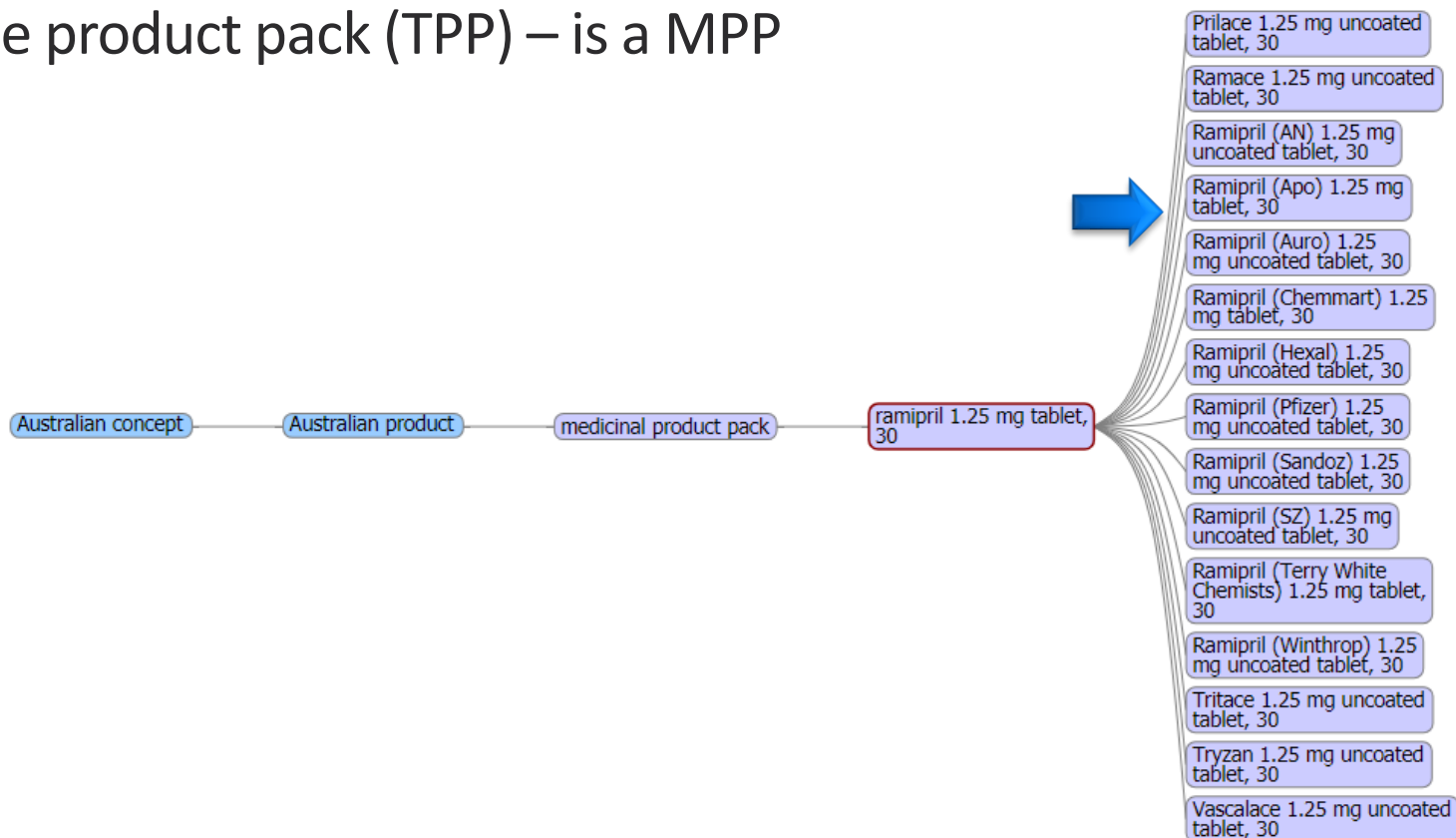


Trade product pack (TPP)

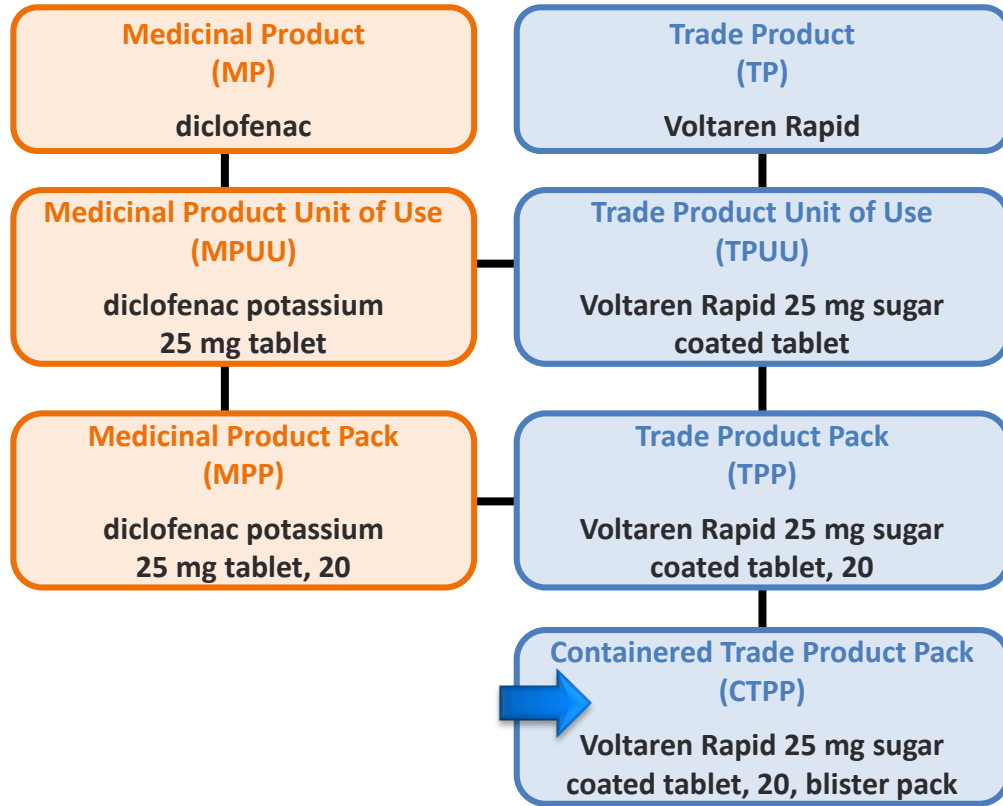


- The packaged product that is supplied for direct patient use devoid of container type.
- A TPP may contain multiple TPUU components, each of which may or may not be available for supply as an independent prescribable product.

Trade product pack (TPP) – is a MPP



Containerised trade product pack (CTPP)



- The packaged product that is supplied for direct patient use and includes details of the container type.
- The Container Type defines the type of container that immediately covers the medicine. This is the packaging which directly covers the unit of use, such as a blister pack for a tablet, or a sachet for a patch (which is then placed inside a box, the secondary package).
- Attributes include the brand, the types and number of units it contains, and the container type.

AMT qualifiers and numerical values

- AMT qualifiers include:
 - container type
 - form
 - unit of measure
 - unit of use
- AMT also represents numerical values in a machine-readable way for:
 - Strength
 - Unit of use size
 - Unit of use quantity
 - Subpack quantity



Concept permanence

- Once released, a concept persists forever in the terminology.
- It can be inactivated and replaced by another concept e.g. a change in source data, change in editorial rules, concept erroneously created, etc.
- A description associated with a concept can change (e.g. minor changes like spelling, casing and word re-ordering), but the concept will remain unchanged.



Discontinued products

- AMT continues to represent products discontinued from the market as active concepts because they are still valid to be recorded in electronic health records.
- For example, *|Nizoral 200 mg tablet|* is in AMT to support recording of past prescriptions or dispense records even though it was discontinued from the market in Dec 2013.
- Implementers will need to have their own process to mark a product as discontinued (e.g. system flag, discontinued date, etc).

Editorial rules

- Focus on the naming conventions and rules associated with all description types for concepts in the AMT model.
- Changes are communicated in the SNOMED CT-AU release note.
- The current version is available in the document library on the NCTS website www.healthterminologies.gov.au

AMT reference sets

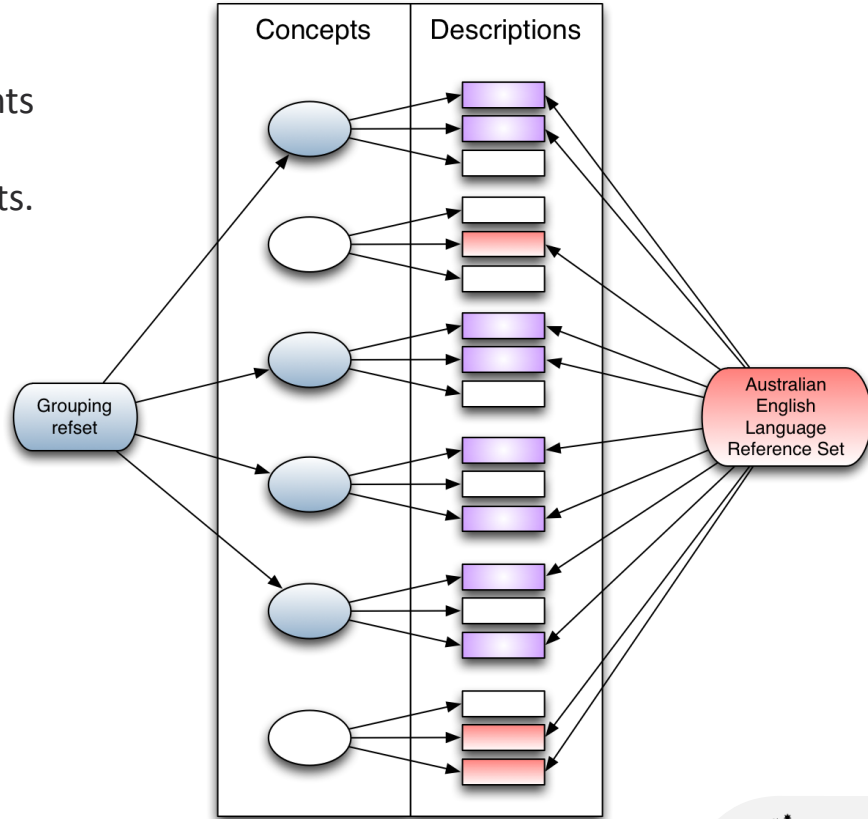
Reference sets

- Identify specific subsets of content and support a range of granularity and specificity.
- Most are subsets (simple type), but there are other types e.g. mapping or association reference sets.

SNOMED CT-AU				AMT
Examples of foundational reference sets (subsets)	Examples of broad context reference sets (subsets)	Examples of specific reference sets (subsets)	Examples of specific reference sets (non-subsets)	
Clinical finding foundation reference set	Imaging procedure reference set	Adverse reaction agent reference set	Association reference set	
Procedure foundation reference set	Neoplasm and/or hamartoma reference set	Clinical manifestation reference set	Australian English Language reference set	
Substance foundation reference set	Microorganism reference set	Dose based prescribing route of administration reference set	Dose route and form extended association reference set	
Containerised trade product pack reference set AMT	Musculoskeletal finding reference set	Laterality reference set	ARTG Id reference set AMT	
Medicinal product reference set AMT	Respiratory finding reference set	Problem/Diagnosis reference set	Strength reference set AMT	

Using reference sets

- Reference sets filter the core components for the desired content, or add non-defining information to core components.
- Several reference sets may be used at once.



How can the AMT be used?

How does it impact clinicians?

Clinicians:

- Don't need to remember any codes
- Don't need to learn a “new language”
- Don't need to do anything “extra”
- Shouldn't see codes
- But, can use various SNOMED CT synonyms available to aid search effectiveness...

Shouldn't even realise they're using SNOMED CT...

User interface example – picklist

Medicine

Ziagen 20 mg/mL oral liquid solution

Go!

Active ingredient	Brand	Strength	Dose form
Abacavir	Ziagen	20 mg/mL	oral liquid solution
Abacavir + lamivudine		300 mg	tablet
Abacavir + lamivudine + zidovudine			
Abatacept			

- Each element's set of values (pick list) derived from a reference set
- Each selection can constrain possible values for other elements
- Results in one selected concept

User interface example – search value sets

Medicine

 Panad

Go!

Panadeine
Panadeine Caplet
Panadeine Extra
Panadeine Forte
Panadeine Rapid
Panadeine uncoated tablet
Panadeine Caplet film-coated tablet
Panadeine Caplet uncoated tablet
Panadeine Extra uncoated tablet
Panadeine Forte uncoated tablet
Panadeine Rapid soluble tablet
Panadol
Panadol Allergy Sinus
Panadol Caplet

- Search value sets is recommended when the user is selecting from a large list
- Search data can be derived from multiple reference sets (TP and TPUU reference sets in this example)

Vendor dependency

- Experience with using the AMT can be vendor specific
- Search functionality may affect results

Poor implementation = Poor Terminology Experience

- Guidance and product support available from the NCTS team



Case studies

- Eastern Health
 - one of the largest metropolitan public health services in Victoria
 - use AMT within their clinical systems: Cerner Millennium for medication orders and Merlin for dispensing
 - reported reductions in pharmacist interventions, and improved allergy recording
 - read more at https://www.healthterminologies.gov.au/docs/DH_2415_2016_AMT_BenefitsAnalysis20142015_v1.1.pdf
- Healthdirect Australia
 - consumer website that allows users to search for information about their medicines
 - use the AMT as a reference terminology
 - this allows extensive mappings between other datasets to display comprehensive information to users
 - read more at <https://www.hisa.org.au/slides/hic18/mon/JamesHumffray.pdf>

NCTS website

National Clinical Terminology Service

The National Clinical Terminology Service (NCTS), operated by the Australian Digital Health Agency, is responsible for managing, developing and distributing national clinical terminologies and related tools and services to support the digital health requirements of the Australian healthcare community.

This responsibility includes being the Australian National Release Centre for SNOMED CT[®] on behalf of SNOMED International.

Get Started >



The NCTS's terminology solutions include SNOMED CT-AU and the Australian Medicines Terminology (AMT). Tools and services available to users include:

- Terminology server;
- Online browser;
- Mapping platform; and
- National Syndication Server.

<https://www.healthterminologies.gov.au/>

We have a dedicated Product Support team to assist licence holders in their understanding and implementation of these solutions.

Support services can be tailored to customer requirements, and range from general training and education on the terminology through to specific technical support at your workplace.

To request support or provide any other feedback, please email help@digitalhealth.gov.au or phone 1300 901 001

1



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Terminology Tools

Terminology in Use

Specifications

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What are Clinical Terminologies?

Clinical terminologies are structured vocabularies covering complex concepts such as diseases, operations, treatments and medicines. Clinical terminologies can be used in clinical practice to aid health professionals with more easily accessible and complete information regarding medical history, illnesses, treatments, laboratory results, and similar facts.

Examples of international standards in terminology include SNOMED CT and LOINC [TM](#).

Benefits for Individuals

Clinical terminologies as a foundation of health records can benefit individuals through improved quality of care with greater cost-effectiveness. They standardise clinical information which can facilitate improved patient outcomes, clinical decision support, follow-up, and treatment by:

- Providing consistent meaning in the clinical information recorded during consultations;
- Allowing an enhanced link between clinical guidelines and protocols to clinical records;
- Forming the basis of decision support systems which check the patient's records and provide real time advice about important clinical alerts such as drug allergies;
- Enabling the sharing of important clinical information to others involved in the patient's care journey, with meaningful and accurate interpretation of this information regardless of the type of provider; and
- Reducing the frequency and impact of adverse healthcare events.

Benefits for Healthcare Organisations

Clinical terminologies allow meaning-based retrieval of clinical information to help healthcare organisations to conduct effective analyses for research, evaluating the quality and cost of care, designing effective treatment guidelines, and much more. Other benefits include:

- The identification of emerging health trends and issues;
- Monitoring of the overall health of the greater population and any responses to changing clinical practices;
- Enabling accurate and targeted access to relevant information, reducing errors; and
- Reducing costly duplications of testing and treatment.

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Available Formats

The NCTS terminology products are available in a variety of formats to improve accessibility and adoption by a broad range of users spanning business, clinical and technical.

This section provides an overview of each format type including what it contains, features, limitations and typical use cases to assist users in determining their most suitable format.

[SNOMED CT-AU RF2 Release](#)



[FHIR® Resources](#)



[TSV Value Sets](#)



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The document library provides access to all NCTS documentation, presentations and webinars related to the understanding, use, adoption and implementation of Australian clinical terminology products. The different types of readerships are categorised as follows.

- **Introductory:** all users;
- **Business:** those involved in setting policies or strategic directions, making decisions about the implementation, purchase or design of electronic health record systems or the use of terminologies and information models in healthcare systems;
- **Clinical:** those involved in direct patient care or involved with the implementation of terminology content from a health record or clinical perspective. These individuals provide clinical domain expertise to the specifications of data or value sets; and
- **Technical:** individuals designing, building or maintaining electronic health record systems or implementing terminologies or information exchange processes within a system.

Only the latest version of each document is available for download. If you require an older version, please complete the online [Support Request form](#) or email help@digitalhealth.gov.au.

By operation of the *Public Governance, Performance and Accountability (Establishing the Australian Digital Health Agency) Rule 2016*, on 1 July 2016, all the assets and liabilities of NEHTA will vest in the Australian Digital Health Agency. In this website, on and from 1 July 2016, all references to "National E-Health Transition Authority" or "NEHTA" will be deemed to be references to the Australian Digital Health Agency.

Introductory



Business



AMT Benefits Analysis 2014-2015



AMT Concept Model and Business Use Cases v2.1



NCTS Batch Request Submission Template



NCTS Guidance for People and Processes v1.0



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As part of NCTS Portal registration process, you will be prompted to accept these license agreements and given the opportunity to also accept license agreements for other NCTS products.

[SNOMED CT Affiliate License Agreement](#)

[Australian National Terminology License Agreement](#)

If you plan to use SNOMED CT outside of Australia or deploy a mobile application which uses SNOMED CT, you must also contact SNOMED International directly by sending an email to info@snomed.org.

Further information on non-member country usage is provided in the [Licensing FAQs](#) and on the SNOMED International website:

[SNOMED CT Licensing in non-Member countries](#)

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Reference Sets

This section allows all users to freely browse or search SNOMED CT-AU reference sets and their metadata as well as those developed by the Royal Australian College of Surgeons and Royal College of Pathologists of Australasia as part of our third party reference set hosting service. To view the metadata, click on the View icon next to the corresponding reference set.

To access the content of these resources, firstly [log in](#), then click on either the FHIR[®] JSON, FHIR XML or TSV links within the technical metadata. The FHIR download links use the National Terminology Server Integration Interface, which may also be accessed programmatically.

For more information about the Integration Interface and FHIR, see [National Terminology Server](#).

Note: If you have configured Microsoft Excel to automatically open TSV files, it will assume the field type to be General and the identifiers and some text may be displayed incorrectly resulting in ID digit errors and strange characters for words with accents (e.g. Ménière's Diseases). To avoid this, users should first open Excel, and import the file (not simply open) from within to have the opportunity to change the settings. The settings should specify that the file be tab delimited, with the file origin of 'unicode (UTF-8)' and the ID column is set to Text (not General).

You must be [logged in](#) to download.

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Keyword

Status

Current Release



Search

View	Name	Description
	Type of hearing loss reference set	Supports the recording of hearing loss types.
	Degree of hearing loss reference set	Supports the recording of hearing loss degrees.
	Adverse reaction agent reference set	Supports the accurate recording of the most common

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Release Bundles

The following sections provide links to download the last six SNOMED CT-AU and AMT combined monthly release versions in their native RF2 distribution format. Linked archives contain all of the relevant terminology release data, such as the SNOMED CT core terminology files, the Australian Dialect Reference Set, and other reference sets for use in Australian healthcare including third party terminology from the Royal Australian College of Surgeons and Royal College of Pathologists of Australasia.

You must be logged in to download.

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For more information about SNOMED CT-AU and the RF2 release format, see the [Learn section](#).

[SNOMED-CT AU 31 Jul 2018 \(Current\)](#)[SNOMED-CT AU 30 Jun 2018](#)[SNOMED-CT AU 31 May 2018](#)[SNOMED-CT AU 30 Apr 2018](#)[SNOMED-CT AU 31 Mar 2018](#)[SNOMED-CT AU 30 Feb 2018](#)

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Technical Guides

Specific implementation guidance can be found here. This information along with additional technical guidance for developers and vendors can be found in the document library.

RF2 Release

SNOMED CT-AU Australian Technical Implementation Guide	Provides practical implementation guidance for software developers and technical consumers on SNOMED CT-AU (including the AMT). It should be used in conjunction with the SNOMED CT Technical Implementation Guide (SNOMED International).
SNOMED CT Technical Implementation Guide (SNOMED International)	Detailed specifications of release files and other SNOMED International standards, and guidance on implementation of SNOMED CT. It should be used in conjunction with SNOMED CT-AU Australian Technical Implementation Guide.
SNOMED CT-AU Australian Terminology Sample Scripts	Sample SQL scripts to provide a starting point for loading and working with SNOMED CT-AU in a relational database environment (MySQL) and aid in the learning of the release format and data structures
SNOMED CT-AU Reference Set Implementation Toolkit	Sample applications built on Oracle's Java platform and the Microsoft .NET Framework that demonstrate importing and using SNOMED CT-AU reference sets.

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Introduction to TOOLS

The National Clinical Terminology Service provides tools to assist users in the authoring and management of terminology within their own environment.



Terminology applications and tools include terminology servers, browsers, syndication services, and mapping environments. These tools include:

- Browsers (Shrimp);
- National Syndication Server;
- National Terminology Server;
- Ontoserver[®]; and
- Snapper.

For a detailed introduction to all our products and services, including how to integrate with the NCTS, please refer to the NCTS Guide for Implementers.

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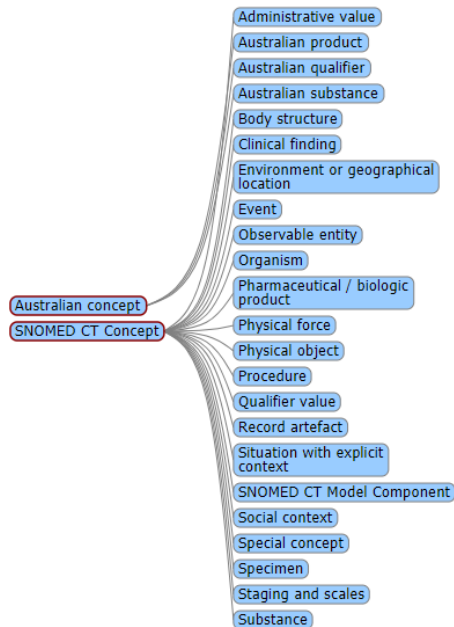
Terminology Browsers

Shrimp* is a free, online browser, for hierarchical terminologies. It is backed by Ontoserver and is recommended by the NCTS. Users are able to search content or browse the hierarchies of the following terminologies:

- SNOMED CT-AU (incorporating the AMT); and
- LOINC.

To search both SNOMED CT-AU and the AMT select the latest (or earlier) version of SNOMED Clinical Terms Australian Extension in the dropdown menu.

The **SNOMED International SNOMED CT Browser** provides ways to browse and search SNOMED CT. The browser is provided by SNOMED International to anyone for reference purposes.



<https://ontoserver.csiro.au/shrimp>



SNOMED CT

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All concepts

Search terms

Can't find the concept?

PROPERTY	VALUE
Code	30561011000036101
Fully specified name	Australian concept (concept)
Preferred	Australian concept
Synonym (acceptable)	Australian concept
Effective Time	20090630
Primitive	true
Module ID	900062011000036108

Australian concept

<http://www.w3.org/2002/07/owl#Thing>



Australian concept

Australian product

medicinal product

medicinal product unit
of use

ramipril

ramipril 1.25 mg tablet

Prilace 1.25 mg uncoated
tabletRamace 1.25 mg uncoated
tabletRamipril (AN) 1.25 mg
uncoated tabletRamipril (Apo) 1.25 mg
tabletRamipril (Auro) 1.25
mg uncoated tabletRamipril (Chemmart) 1.25
mg tabletRamipril (Hexal) 1.25
mg uncoated tabletRamipril (Pfizer) 1.25
mg uncoated tabletRamipril (Sandoz) 1.25
mg uncoated tabletRamipril (SZ) 1.25 mg
uncoated tabletRamipril (Terry White
Chemists) 1.25 mg tabletRamipril (Winthrop) 1.25
mg uncoated tabletTritace 1.25 mg uncoated
tabletTryzan 1.25 mg uncoated
tabletVascalace 1.25 mg uncoated
tablet

SNOMED CT

AU - 20180831

All concepts

ramipril 1.25 mg tab

ramipril 1.25 mg tablet (MPUU)

Ramipril (Apo) 1.25 mg tablet (TPUU)

Ramipril (Chemmart) 1.25 mg tablet (TPUU)

Ramipril 1.25 mg oral tablet (clinical drug)

ramipril 1.25 mg tablet, 10 (MPP)

ramipril 1.25 mg tablet, 21 (MPP)

ramipril 1.25 mg tablet, 28 (MPP)

ramipril 1.25 mg tablet, 30 (MPP)

ramipril 1.25 mg tablet, 7 (MPP)

Ramipril (AN) 1.25 mg uncoated tablet (TPUU)

Ramipril (Apo) 1.25 mg tablet, 30 (TPP)

Ramipril (Auro) 1.25 mg uncoated tablet (TPUU)

Ramipril (Chemmart) 1.25 mg tablet, 30 (TPP)

Ramipril (Hexal) 1.25 mg uncoated tablet (TPUU)

Ramipril (Pfizer) 1.25 mg uncoated tablet (TPUU)

Ramipril (Sandoz) 1.25 mg uncoated tablet (TPUU)

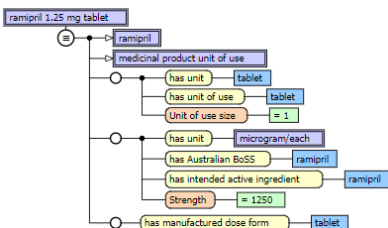
Ramipril (SZ) 1.25 mg uncoated tablet (TPUU)

Ramipril (Winthrop) 1.25 mg uncoated tablet (TPUU)

Can't find the concept?

63 matches

PROPERTY	VALUE
Code	22689011000036100 
Fully specified name	ramipril 1.25 mg tablet (medicinal product unit of use) 
Preferred	ramipril 1.25 mg tablet 
Synonym (acceptable)	ramipril 1.25 mg tablet 
Effective Time	20090630 
Primitive	false 
Module ID	900062011000036108 



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Snapper:Map^{*} is a user-friendly authoring application backed by Ontoserver[®] that enables users to develop and maintain concept maps between local code sets and national terminologies. The outputs are also available as FHIR terminology resources which can be utilised by FHIR terminology servers and implemented into software systems.

The application is currently not for production use and not feature complete.

Please [register](#) or [log in](#) to gain access to Snapper:Map.

Note: The Snapper:Author application is no longer being provided by the NCTS at this point in time; however, it can still be accessed via the [Ontoserver Website](#).

<https://www.healthterminologies.gov.au/fhirAuthoring/map.html#/>

Import existing FHIR Concept Maps

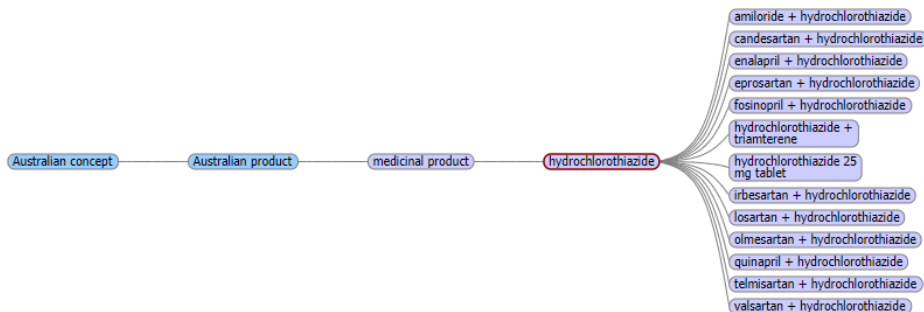
Classic Maps

My Example Map

Mapping Editor

Source	Target	Category	Map	Status	Notes
Hydrochlorothiazide	hydrochlorothiazide	(medicinal product)	inexact	Automap	
Imatinib	imatinib	(medicinal product)	inexact	Automap	
Isotretinoin oral			unmatc...	Automap	
Isotretinoin topical			unmatc...	Automap	
Lansoprazole	lansoprazole	(medicinal product)	inexact	Automap	
Linezolid	linezolid	(medicinal product)	inexact	Automap	
Maraviroc	maraviroc	(medicinal product)	inexact	Automap	
Methadone	methadone	(medicinal product)	inexact	Automap	
Miconazole (dermal)			unmatc...	Automap	
Miconazole (oral)			unmatc...	Automap	

Total Items: 54 | Unmapped: 8 | Selected: 1



Search

Target Value Set

isotretinoin

Showing 1 of 1 matches

isotretinoin

Property

Value

Code	21814011000036109
System	http://snomed.info/sct
Version	http://snomed.info/sct/32506021000036107/version/20180831
Display	hydrochlorothiazide
Designation	hydrochlorothiazide
Designation	hydrochlorothiazide (medicinal product)
Sufficiently Defined	true
Effective Time	20090630
Module Id	900062011000036108

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RCPA

SNOMED CT Namespace Identifier

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SNOMED CT-AU and AMT

The online submission form below can be used to request additions or changes to content for both SNOMED CT-AU and the Australian Medicines Terminology (AMT). Once the submission form is completed and submitted, you will receive an email from help@digitalhealth.gov.au requesting any supporting documentation (e.g. references to journal articles, clinical texts or Product Information) which should be attached to the email and returned.

Multiple or Batch Requests

For a large number of SNOMED CT-AU or AMT requests, please download the [Batch Request Submission Template](#) and complete all required information as indicated. Once completed, please email to help@digitalhealth.gov.au along with any supporting documentation.

AMT Descriptions for PBS Listings

The Department of Health has updated the way submissions are made to the Pharmaceutical Benefits Advisory Committee (PBAC) for listing medicines on the Pharmaceutical Benefits Scheme (PBS). Sponsors are now required to complete an AMT request form for any products not currently listed in the AMT prior to PBAC submission. Note: this process may take up to 3-5 days. The Australian Medicines Terminology (AMT) descriptions for PBS Listings request submission form can be downloaded from the [PBAC website](#).

For further information please see [NCTS Request Submission Guidelines for Terminology Products](#) or email help@digitalhealth.gov.au

Online Submission Form

* Required field

First Name *

Last Name *

Organisation Name *

Department

Organisation Type

Position Title

Address

Contact us

Help Centre	1300 901 001
Email	help@digitalhealth.gov.au
Website	digitalhealth.gov.au
Twitter	twitter.com/AuDigitalHealth

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