



Australian Government

Australian Digital Health Agency

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Terminology requirements for:

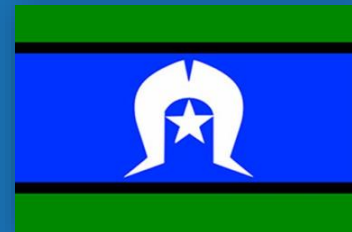
- Electronic Prescriptions
- Active Ingredient Prescribing

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# Acknowledgement

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We would like to acknowledge the traditional owners of country throughout Australia, and their continuing connection to land, sea and community. We pay our respects to them and their cultures, and to Elders both past and present.

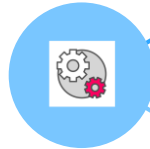
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# Agenda

Electronic Prescriptions (EP) and  
Active Ingredient Prescribing (AIP)



Implementation approaches and  
considerations



Next steps



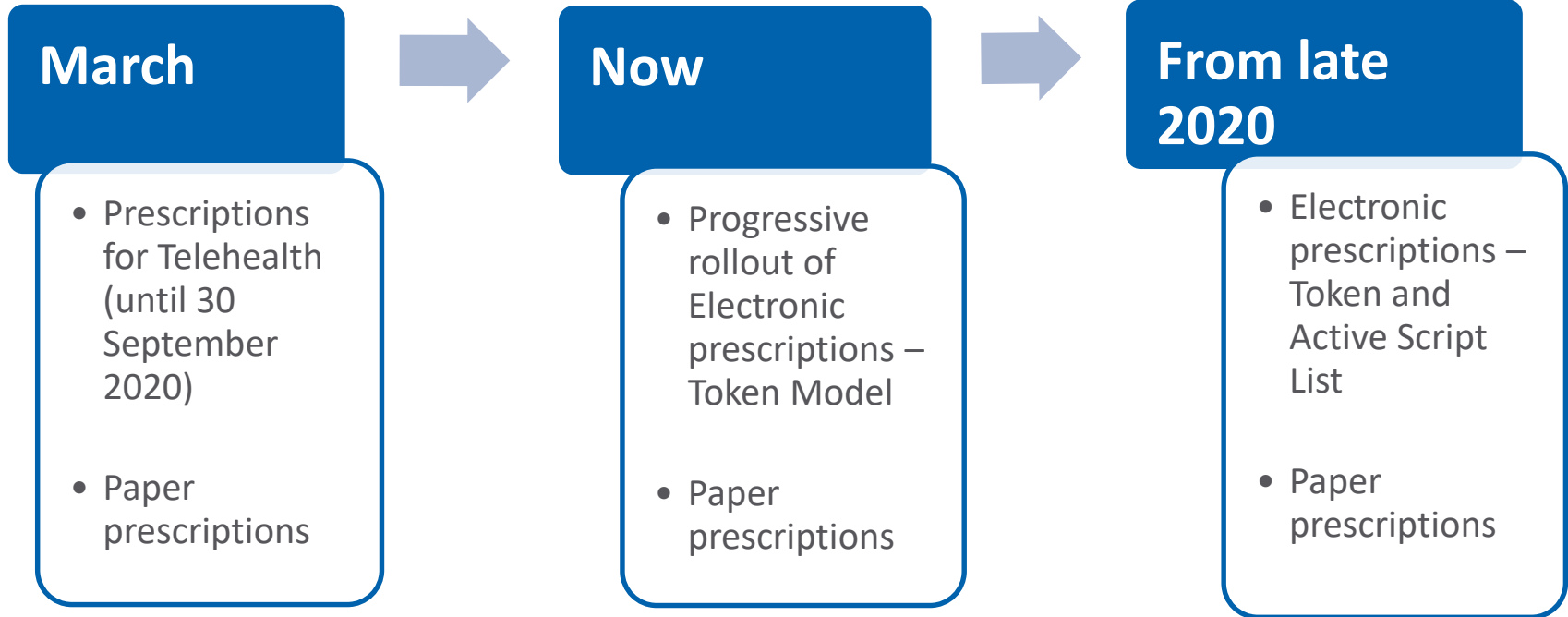
Terminology requirements



Accessing SNOMED CT-AU data



# Electronic Prescriptions Roadmap



<https://www.health.gov.au/resources/collections/coronavirus-covid-19-national-health-plan-resources>  
<https://www.psa.org.au/coronavirus/regulatory-changes/#digital-image-prescription>



# Active Ingredient Prescribing

- The *National Health (Pharmaceutical Benefits) Amendment (Active Ingredient Prescribing) Regulations 2019* came into effect on 31 October 2019.
- Under the new regulations, a health practitioner issuing an electronic prescription for a PBS medicine must identify the medicine by reference to the Active Ingredient, rather than the brand name.
  - Certain medicines are excluded from the AIP legislation including those with four or more active ingredients, and items under the 'various' section of PBS/ RPBS schedule, e.g. diagnostic agents, dressings, supplements.
  - The inclusion of a brand name (following the active ingredient) on a prescription may be included if deemed clinically necessary by the prescriber.
- Although the legislation is already active, there is a transition period until 31 January 2021.
- <https://ama.com.au/ausmed/changes-way-you-prescribe-%E2%80%93-electronic-and-active-ingredient-prescribing>



# SNOMED CT is the preferred national solution for clinical terminology, endorsed by the Australian Health Ministers' Advisory Council (AHMAC)



A large 'dictionary' of clinical terms with a unique code that are machine-readable

Australian extension is called SNOMED CT-AU



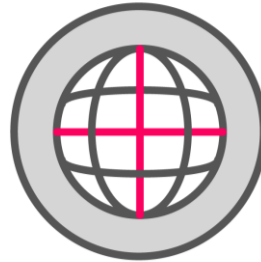
Designed to capture clinical data within electronic records

SNOMED CT-AU contains SNOMED CT core files plus Australian developed content

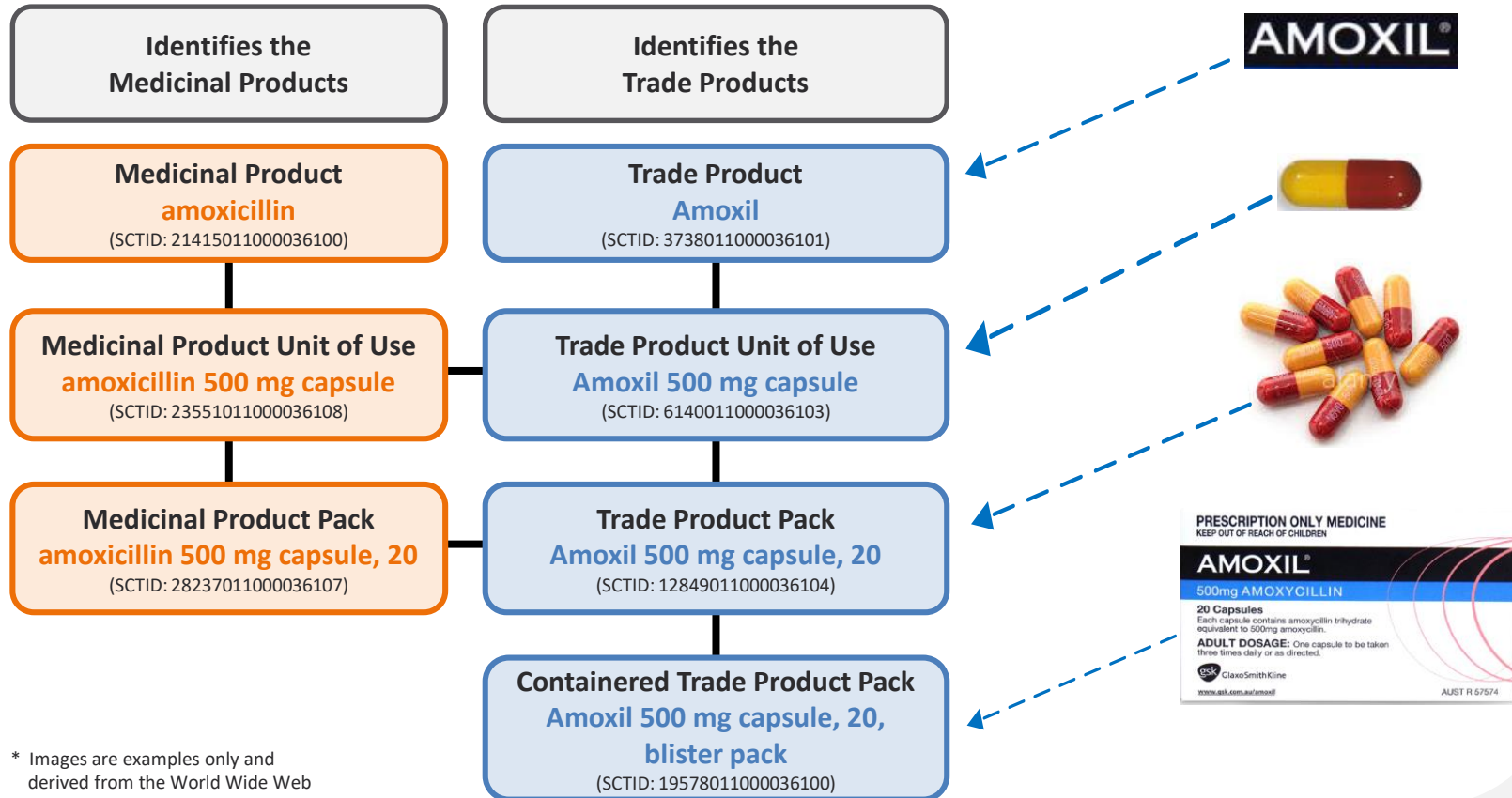


A logical model that supports inferencing because identifiers do not carry meaning

Used across all healthcare sectors (GP, Community, Allied Health, Child Health, ED, inpatient)



# Australian Medicines Terminology (AMT) model – seven notable product classes



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

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# Terminology requirements

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## Summary of terminology requirements for prescribing systems in Electronic Prescribing – Participating Software Conformance Profile v2.2.1\*

Medicine Name Requirement	Interpretation
PRES-20	Include an AMT code if one exists.
PRES-22	Include Original Text.

Reason for Prescribe (Clinical Indication) Requirement	Interpretation
PRES-21	Include a SNOMED CT-AU code if one exists.
PRES-21A	The system should allow Reason for Prescribe to be recorded.
PRES-22	Include Original Text.
PRES-49	Include the human-readable description of the SNOMED CT-AU code that has been supplied.
PRES-53	If no coded value is provided, Reason for Prescribe should be recorded in free text.

\* Summary only, please refer to current document for more information.



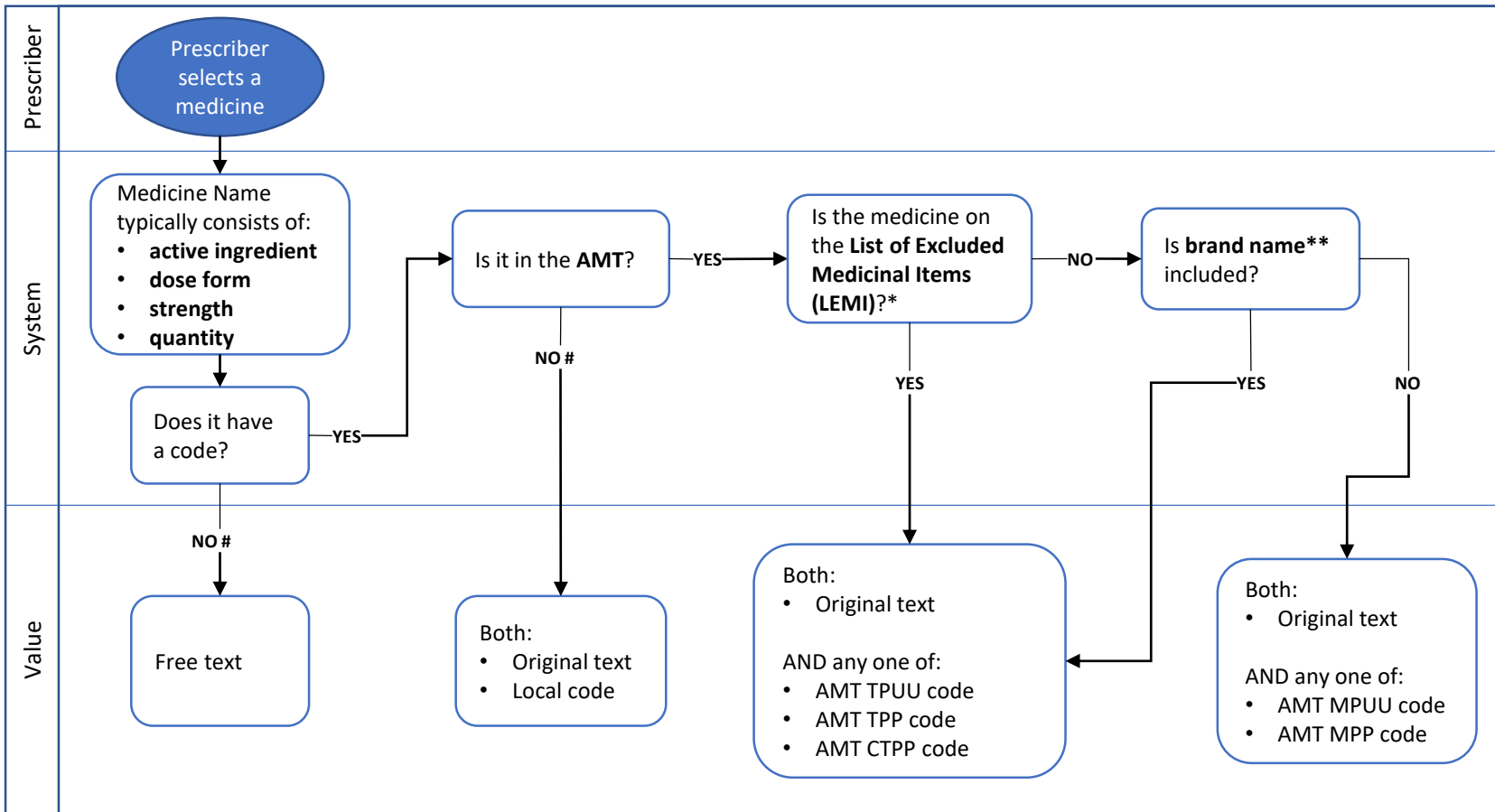
# Summary of PBS/RPBS Active Ingredient Prescribing guidelines – Vendor Resource Document (VRD) v1.9\*

Item	Section	Guideline
List of Medicines for Brand Consideration (LMBC)	4.2.1	This list of medicines is for prescribers to consider if the inclusion of the brand name on the prescription is necessary for their patient.
List of Medicines for Brand Consideration (LMBC)	4.2.2	The software must prompt for prescribers to consider if the inclusion of the brand name on the prescription is necessary for their patient, for the listed medicines.
List of Excluded Medicinal Items (LEMI)	4.2.3	This list of medicines are excluded under the AIP legislation, from the mandated requirement to include the active ingredient names(s) on the prescription.
List of Excluded Medicinal Items (LEMI)	6	Explains the prescribing rules and situations which are excluded under the AIP legislation.

\* Summary only, please refer to current document for more information.



# EP requirements and AIP guidance for terminology – **Medicine Name**



**EP – Participating Software Conformance Profile v2.2.1:**  
 PRES-20  
 PRES-22

**MSIA AIP VRD v1.9:**

- \* Section 4.2.3
- \* Section 6
- \*\* Section 4.2.1
- \*\* Section 4.2.2

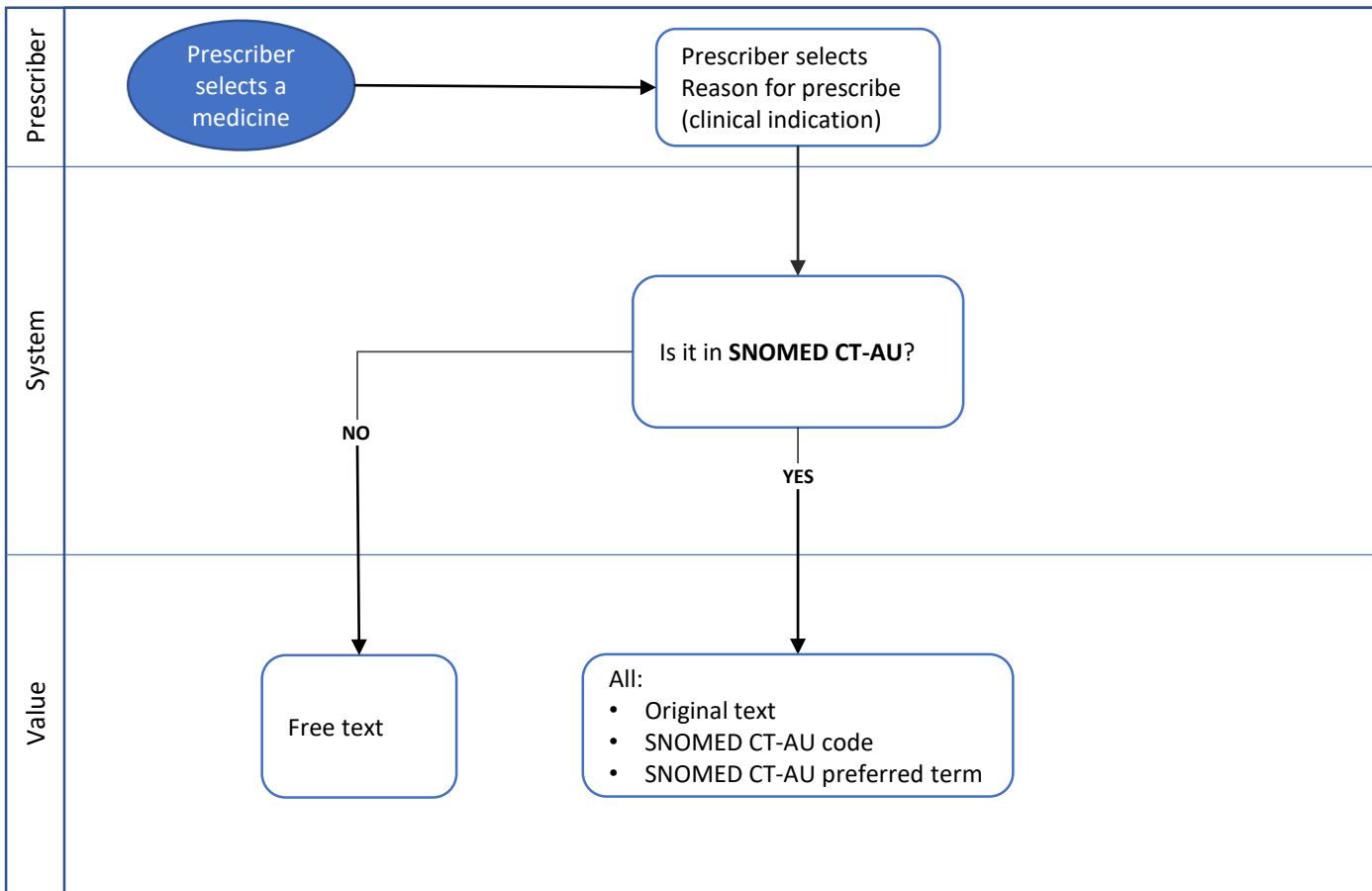
# There are other specific drug code inclusion rules for ePrescribing and real time prescription monitoring (RTPM) that are outside the inclusion of AMT. Contact your prescription delivery service for more details.

**Note**

- Additional terminology requirements not covered including for translations and code system versions



## EP requirements for terminology – Reason for Prescribe (clinical indication)



EP – Participating Software Conformance Profile v2.2.1:  
PRES-21  
PRES-21A  
PRES-22  
PRES-49  
PRES-53

### Notes

- Access to SNOMED CT-AU can be via a mapping or a native implementation
- Reason for prescribe (clinical indication) is not mandatory for data entry
- Free text field can be used when the code is not present in SNOMED CT-AU, or to refine the selected SNOMED CT-AU code, or to capture multiple reasons for prescribe.
- Additional terminology requirements not covered including for translations and code system versions



# Relevant terminology subsets available from the NCTS

Purpose	Preferred term includes	NCTS subset
Record the medicine being prescribed	Active ingredient + form + strength	<i>Medicinal product unit of use reference set</i>
	Active ingredient + form + strength + pack size	<i>Medicinal product pack reference set</i>
	Brand + form + strength	<i>Trade product unit of use reference set</i>
	Brand + form + strength + pack size	<i>Trade product pack reference set</i>
	Brand + form + strength + pack size + container type	<i>Containerised trade product pack reference set</i>
Identify list of medicines for brand consideration (LMBC)		<i>List of medicines for brand consideration reference set</i> This is a subset of: <ul style="list-style-type: none"> <li>• <i>Medicinal product unit of use reference set</i></li> <li>• <i>Medicinal product pack reference set</i></li> </ul>
Record the clinical indication for prescribing a medicine		<i>Reason for request value set</i> This is composed of: <ul style="list-style-type: none"> <li>• <i>Problem/Diagnosis reference set</i></li> <li>• <i>Procedure foundation reference set</i></li> <li>• <i>Australian Emergency department reference set</i></li> </ul>

Two subset formats are available:

- **Reference sets:** subsets containing only SNOMED CT components, conforming to the SNOMED CT specification.
- **ValueSets:** conform to the FHIR® specification.



# Terminology content requests

## AMT Content Request

### AMT Content Request

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](mailto: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 document below and complete all required information as indicated. Once completed, please email to [help@digitalhealth.gov.au](mailto:help@digitalhealth.gov.au) along with any supporting documentation.

NCTS Batch Request Submission Template  
A form for the submission of multiple or batches of content requests for both Australian Medicines Terminology (AMT) and SNOMED CT-AU.

DOWNLOAD

### 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 the NCTS Request Submission Guidelines document below for Terminology Products or email [help@digitalhealth.gov.au](mailto:help@digitalhealth.gov.au)

NCTS Request Submission Guidelines v1.1  
Provides guidance on how to submit a request to the NCTS for the creation, modification, or inactivation of clinical terminology content.

DOWNLOAD

## [AMT Content Request](#)

## SNOMED CT-AU Content Request

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DOWNLOAD

Online Submission Form

First Name \*

First name

Last Name \*

Last name

Email \*

Email Address

Phone \*

Phone

## [SNOMED CT-AU Content Request](#)



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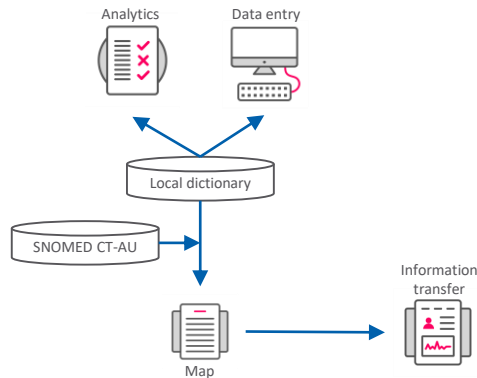
# Implementation approaches for terminology

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# Common terminology implementation approaches

## Mapping

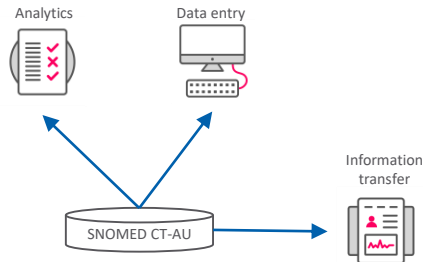
Existing system with a local terminology in need of external interoperability.



- Can exchange terminology information with other systems
- Resource intensive to maintain map
- Risk of translation errors

## Native

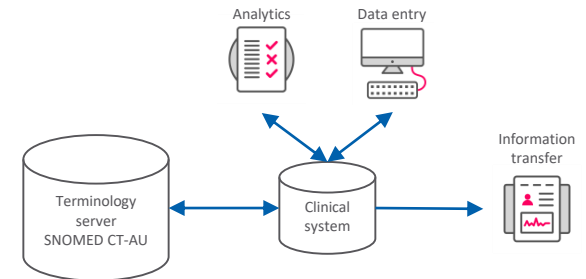
SNOMED CT-AU is directly integrated into a system.



- Replace local dictionary or code set with SNOMED CT
- Full analytic power of SNOMED available
- More complexity in the CIS
- More code to maintain and test

## Terminology server

Deployment of a server to handle terminology functions.

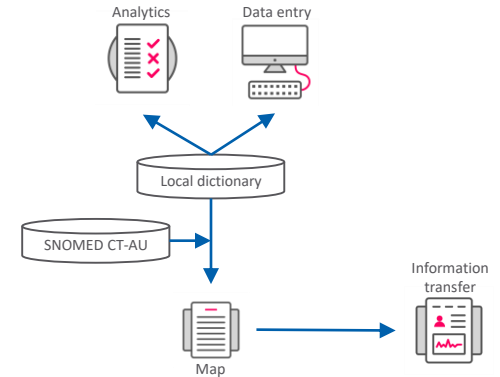


- Developers do not need to understand all the complexities of terminology or design for maintenance
- Supports mapping and native use of SNOMED CT
- Potential external point of failure
- Third party component



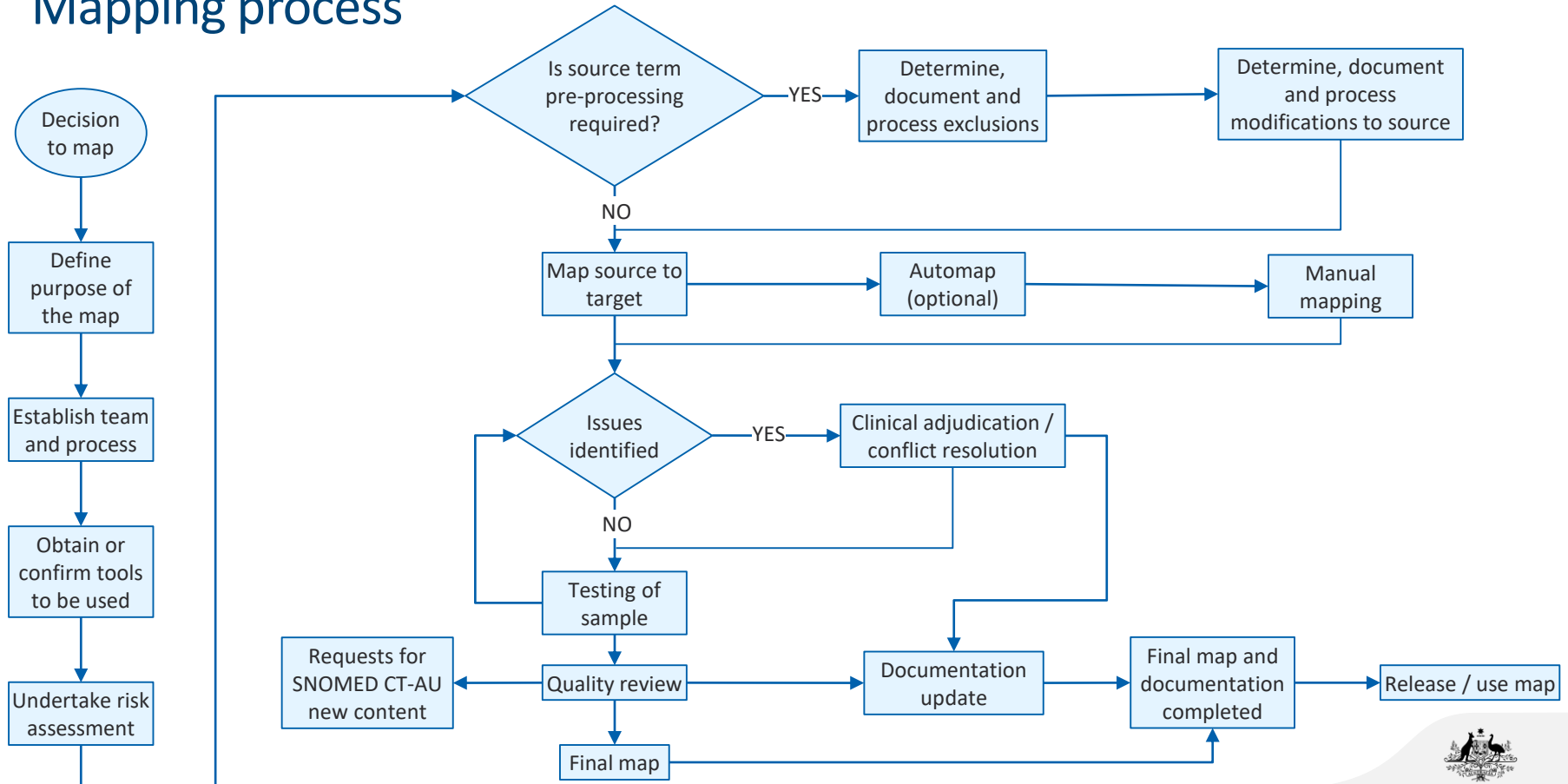
# Implementation approach – mapping

- Existing local dictionary is mapped to SNOMED CT-AU
  - Examples include ICPC2+, DOCLE, proprietary codes such as MIMS
- Map used to exchange information with other systems and conform to national specifications
- Local dictionary used for data entry and analytics
- Map can be boot-strapped from other data sources
- Mapping tools are available
  
- Considerations
  - Codes vary in their purpose and how they define content
  - Map use case, scope and purpose must be clearly stated
  - Mapping effort, maintenance and risk is locally owned



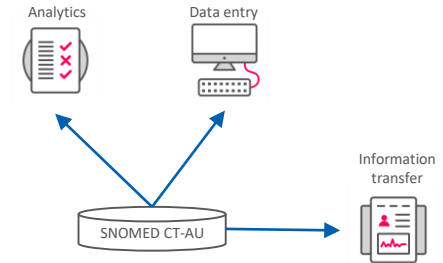
Common use case	Local dictionary	SNOMED CT-AU
Data entry / user interface	✓	✗
Information exchange	✓	✓
Analytics and reporting	✓	✗

# Mapping process



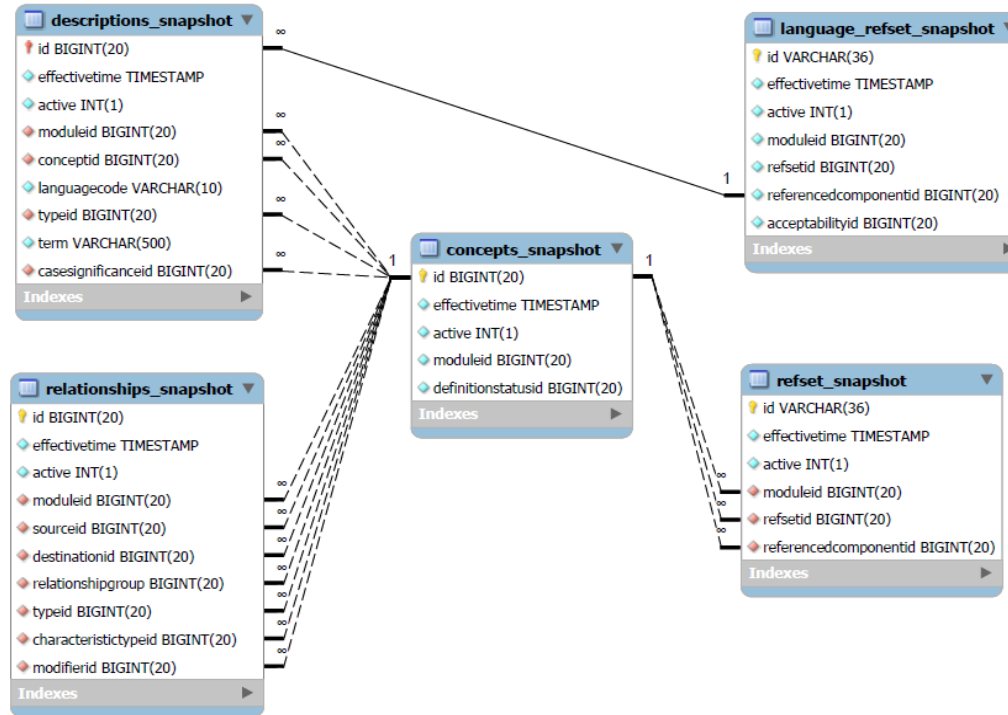
# Implementation approach – native

- Directly adopt terminology within the CIS
  - Recorded codes can be communicated to other systems without translation
  - More use cases supported by SNOMED CT-AU, such as data entry and analytics and reporting
  - Can use a map as an intermediate step to full integration
  - Can use a terminology server to assist with implementation
- 
- Considerations
    - Understanding release files and formats for integration
    - Terminology maintenance and updates
    - Handling gaps in SNOMED CT-AU
    - A limited native approach can be taken to support use cases in a step-wise manner



Common use case	Local dictionary	SNOMED CT-AU
Data entry / user interface	✗	✓
Information exchange	✗	✓
Analytics and reporting	✗	✓

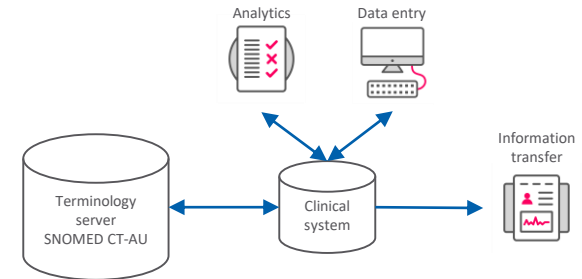
# Entity-relationship diagram for a sample schema using RF2 files



\* For demonstration purposes only and may not represent the most efficient or robust implementation approach. Implementers are advised to conduct their own performance tuning and ensure appropriate exception handling.

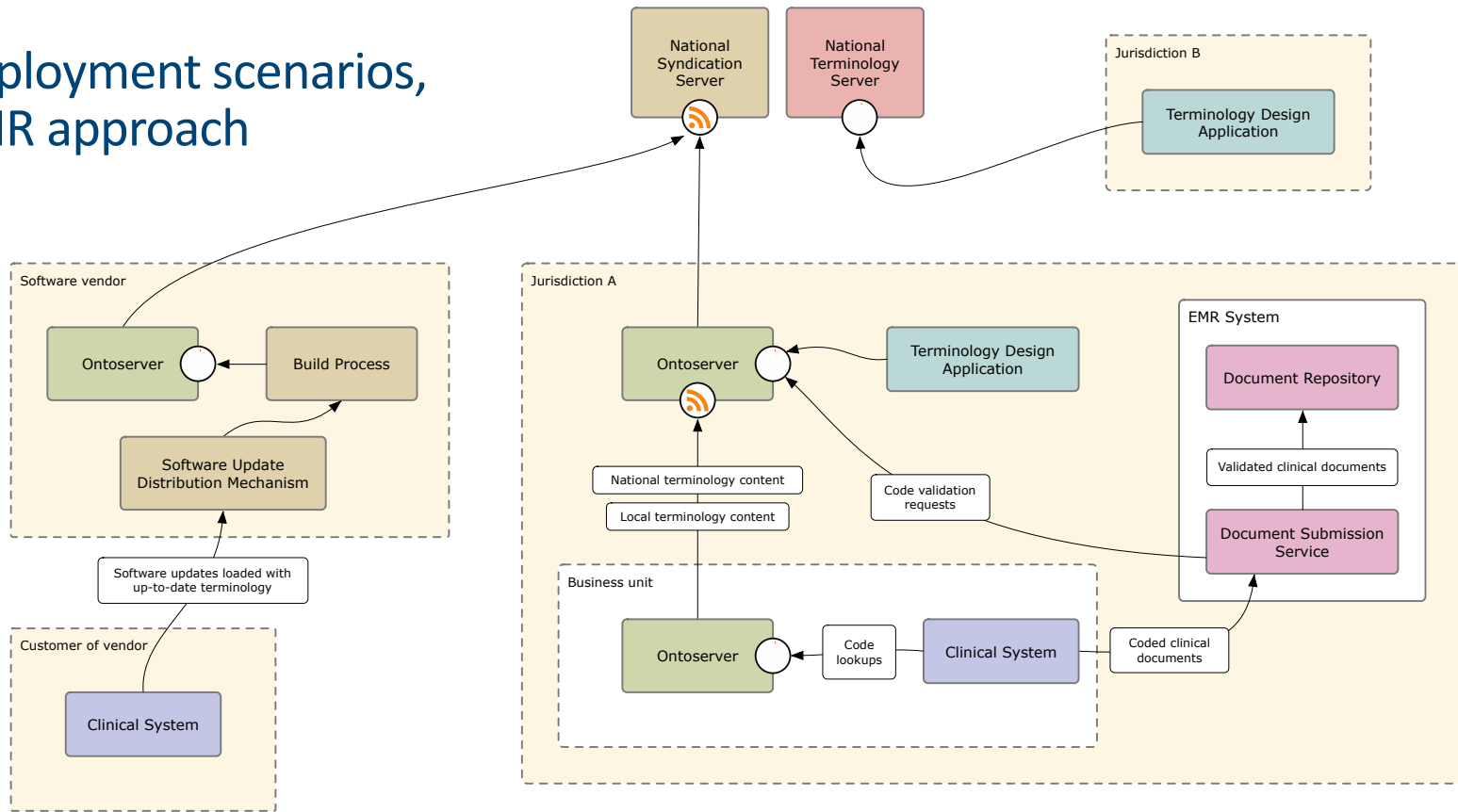
# Implementation approach – terminology server




- Adopt terminology by outsourcing terminology functions to a specialised server
  - CIS can focus on delivering its own tasks
  - Terminology server can be developed in-house or a commercial product
  - Supports use of local dictionary
- Syndicate with the National Terminology Server for easy access to the latest version of SNOMED CT-AU
  - Other national terminologies may also be available
- Considerations
  - Purpose-built for architecture based on HL7 FHIR® standards
  - Understanding terminology server functions
  - Handling gaps in SNOMED CT-AU
  - Potential third party component



Common use case	Local dictionary	SNOMED CT-AU
Data entry / user interface	✓	✓
Information exchange	✓	✓
Analytics and reporting	✓	✓

# Deployment scenarios, FHIR approach



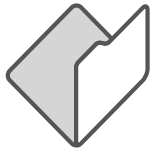
-  NCTS Integration API (FHIR)
-  NCTS Syndication API (Atom)
-  is dependent upon

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# Accessing SNOMED CT-AU

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# Accessing SNOMED CT-AU



Download latest monthly SNOMED CT-AU releases (RF2 files) from NCTS website [healthterminologies.gov.au](http://healthterminologies.gov.au)



Create a Conformant Syndication Server Application (CSSA) by accessing the NCTS Syndication API



Create a Conformant Terminology Server Application (CTSA) by accessing the NCTS Integration API



Set up a local Ontoserver instance which offers both syndication and integration, and several deployment options

Access to SNOMED CT-AU is free of charge for use in Australia to registered users of the National Clinical Terminology Service (NCTS). These access methods can be used in combination and are not dependent on the implementation approach, for example:

- The syndication server can be used to automate RF2 file downloads.
- FHIR terminology servers (such as Ontoserver) support ConceptMaps.





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Next steps

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# Next steps

- Determine the following that is most appropriate for your terminology implementation
  - Approach to adopting SNOMED CT-AU (includes the AMT)
  - Method of accessing SNOMED CT-AU (includes the AMT)
- Additional guidance will be provided by the clinical terminology Product Support team
  - Individualised guidance for each software supplier organisation
  - Workshops may be run for common scenarios
- Follow the Agency [Developer Centre](#) for updates to technical framework documents



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# Questions

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# Contact us

Help Centre 1300 901 001

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