nehta

Release Note

Australian Medicines Terminology

Release — 2.26

Final

National E-Health Transition Authority

National E-Health Transition Authority Ltd

Level 25 56 Pitt Street Sydney, NSW, 2000 Australia. www.nehta.gov.au

Registered names and trademarks

Trademark	Owner
CliniClue®	The Clinical Information Consultancy Ltd.
IHTSDO®	IHTSDO is a registered trademark of the International Health Terminology Standards Development Organisation.
Mac OSX [®]	Apple Inc.
SNOMED CT®	SNOMED CT [®] is a registered trademark of the International Health Terminology Standards Development Organisation.
Windows®	Microsoft Corporation

Disclaimer

NEHTA makes the information and other material ('Information') in this document available in good faith but without any representation or warranty as to its accuracy or completeness. NEHTA cannot accept any responsibility for the consequences of any use of the Information. As the Information is of a general nature only, it is up to any person using or relying on the Information to ensure that it is accurate, complete and suitable for the circumstances of its use.

Document Control

This document is maintained in electronic form. The current revision of this document is located on the NEHTA Web site and is uncontrolled in printed form. It is the responsibility of the user to verify that this copy is of the latest revision.

Copyright © 2011 NEHTA.

This document contains information which is protected by copyright. All Rights Reserved. No part of this work may be reproduced or used in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems—without the permission of NEHTA. All copies of this document must include the copyright and other information contained on this page.

Document control

Name of document:	Release Note: Australian Medicines Terminology (AMT)
Document owner:	National Clinical Terminology and Information Service, NEHTA
Document coordinator:	NCTIS
Author(s):	NCTIS
Document approver:	NCTIS

Document authoring and review

Version	Date	Author	Status and nature of amendments
2.18	20101222	NCTIS	Release note for AMT. Revised format for consistency with NCTIS standards.
2.19	20110128	NCTIS	Release note for AMT.
2.20	2010225	NCTIS	Updated for 2.20. Streamlined Appendix A to focus on issues of relevance to implementers.
2.21	20110325	NCTIS	Release note for AMT.
2.22	20110429	NCTIS	Release note for AMT.
2.23	20110527	NCTIS	Release note for AMT.
2.24	20110624	NCTIS	Release note for AMT.
2.25	20110729	NCTIS	Release note for AMT.
2.26	20111231	NCTIS	Release note for AMT.

Related documents and artefacts

Name	Version/Release/Date
Release file bundle	20111231
https://nehta.org.au/aht	
AMT terminology viewers for Windows [®] and Mac OSX [®]	20111231
https://nehta.org.au/aht	

This page is intentionally left blank

Table of contents

1	Intro	oduction	. 7
	1.1	Statement of purpose	. 7
	1.2	Intended audience	. 7
	1.3	Scope	. 7
	1.4	Background	. 7
	1.5	Questions and feedback	
2	Abou	ut this terminology release	. 9
	2.1	AMT December 2011 Release 2.26	
	2.2	Implementation guidance2.2.1Using AMT with other medicines data	
	2.3	What's new in this release	
		2.3.1 New content additions	
		2.3.2 Updated content	10
	2.4	Resolved issues	11
	2.5	Known issues	16
		2.5.1 EFFECTIVETIME field	16
		2.5.2 Other issues	16
3	Tern	ninology release contents	
	3.1	Release Note	17
	3.2	Australian Medicines Terminology Release content	
		3.2.1 Concepts table	
		3.2.2 Descriptions table	
		3.2.3 Relationships table	
		3.2.4 History mapping reference set.3.2.5 Reference sets	
	3.3	Documentation	
		3.3.1 Development approach for reference sets	
		3.3.2 Reference set library	
	• •	3.3.3 SNOMED CT release format 2 – reference set specifications	
	3.4	Supporting documentation3.4.1AMT supporting documentation	
		3.4.2 SNOMED CT supporting documentation	
	3.5	AMT terminology viewers for Windows and Mac operating systems	
4	Refe	rences	
٨٥٩		A: Known issues list	
•••			
Appe		B: Towards standards for health information exchange in Australia.	
	В.1 в р	NEHTA	
	B.2	National Clinical Terminology and Information Service	
	B.3	Clinical information	
	B.4	Clinical terminology	
	B.5	SNOMED CT and SNOMED CT-AU	
	B.6	International Health Terminology Standards Development Organisation	32

This page is intentionally left blank

1 Introduction

1.1 Statement of purpose

The Australian Medicines Terminology (AMT) delivers standardised identification of brand (trade) products and equivalent generic medicines along with associated components that are supported through standard naming conventions that accurately describe medications.

AMT has been developed to be fit for the purpose of unambiguously identifying for clinicians and computer systems all commonly used medicines* in Australia and can be implemented in clinical information systems for the following activities:

- Prescribe
- Record
- Review
- Issue including dispense
- Administer
- Transfer of information
- *Note: Currently this includes all PBS/RPBS, TGA AUSTR and a range of AUSTL items.

1.2 Intended audience

This document is directed towards implementers of computer systems and clinicians and that will employ or refer to the AMT.

1.3 Scope

This document provides information about the current release of AMT. Although it is not a guide to implementing AMT in computer systems some implementation guidance is provided.

1.4 Background

AMT is updated, verified and validated, and released monthly to incorporate new clinical content, enhance existing content and make use of the terminology more effective. Routine updating continuously improves and extends AMT's coverage of the clinical content used in the Australian health sector.

1.5 Questions and feedback

NCTIS's product development relies on the input and co-operation of the healthcare community. We value your feedback and encourage questions, comments or suggestions about our products.

To provide feedback, or for further information regarding licensing, please contact us via:

email: <terminologies@nehta.gov.au>

mail: Product Lead - AMT, NEHTA, Level 25, 56 Pitt Street Sydney NSW 2000. 2

About this terminology release

2.1 AMT December 2011 Release 2.26

The latest Australian Medicines Terminology (AMT) release is now available for download from the NCTIS Secure Website <<u>https://nehta.org.au/aht></u>.

The NCTIS Secure Website contains SNOMED CT^{®1} and AMT resources and associated information on licensing, guides and tools.

The resources included in this release are:

- This release note.
- A release file bundle containing terminology files and supporting documentation.
- AMT terminology viewers for Windows[®] and Mac OSX[®] operating systems.

2.2 Implementation guidance

All AMT concepts have a Fully Specified Name (FSN) which is intended to provide an unambiguous name for the concept, and a Preferred Term (PT), which is intended to capture the common word or phrase used by Australian clinicians. System developers and end users should implement only Preferred Terms as these are the concepts developed for use by clinicians in Australia.

System developers should ensure that the complete Preferred Term is used as the display name in vendor applications.

System developers should note that the scope for AMT does not include 'Dose Checking' or groupings used for decision support.

Special Safety Note: System developers should be aware that there is a potential safety risk for items such as 'amphotericin B' where 'B' could be read as '8' if it is followed by a 'strength'.

For further AMT implementation assistance please refer to *Australian Medicines Terminology Technical Specifications v3.0* and SNOMED CT[®]-AU documentation available on the NCTIS' secure website.

2.2.1 Using AMT with other medicines data

Numerical codes, whether derived from AMT or other sources, should not be added in the descriptions presented to end users.

Where system editorial rules have the potential to introduce duplicate information into application derived descriptions, this conflict should be resolved before descriptions are exposed to system end users.

SNOMED CT[®] is a registered trademark of the International Health Terminology Standards Development Organisation.

2.3 What's new in this release

2.3.1 New content additions

This release of AMT contains all the Australian marketed products that are included on the Schedule of Pharmaceutical Benefits, including the Repatriation Pharmaceutical Benefits Schedule (RPBS).

This release includes the seven reference sets that are listed in Section 3.2.5. For information about reference sets and their implementation see the *SNOMED CT Release Format 2.0 reference set specifications* document included with the release bundle. Additional documentation can also be downloaded from the SNOMED CT-AU release bundle or IHTSDO's website².

Concept	Current count	Changes since last release
Medicinal Product (MP)	1687	1
Medicinal Product Unit of Use (MPUU)	5618	73
Medicinal Product Pack (MPP)	7756	101
Trade Product (TP)	4363	56
Trade Product Unit of Use (TPUU)	8929	158
Trade Product pack (TPP)	13628	267
Containered Trade Product Pack (CTPP)	14356	277
Total	56337	933

2.3.2 Updated content

² <http://www.ihtsdo.org/publications/tools-for-terminology-developmentmaintenance/>.

2.4 **Resolved issues**

The following issues have been resolved with this release.

ID	Resolved issues	
262 5027	The TPUU PT has been amended to Actonel Once-a-Week (risedronate sodium 35 mg) tablet: film-coated, 1 tablet for the following products:	
	ARTG 117667 Actonel Combi	
	ARTG 138211 Actonel Combi D	
830	The component dosage form has been amended to injection: intrathecal in in this release:	
	 ARTG 53835 LIORESAL Intrathecal Baclofen 10mg/20mL injection ampoule 	
	 ARTG 53836 LIORESAL Intrathecal Baclofen 10mg/5mL injection ampoule 	
991	The component dosage form has been amended to tablet: sublingual for the following products:	
	 ARTG 11086 ANGININE glyceryl trinitrate 600microgram tablet bottle 	
	 ARTG 94215 LYCINATE glyceryl trinitrate 600microgram tablet bottle 	
	 ARTG 76661 SUBUTEX buprenorphine 0.4mg (as hydrochloride) tablet blister pack 	
	 ARTG 76662 SUBUTEX buprenorphine 2mg (as hydrochloride) tablet blister pack 	
	 ARTG 76663 SUBUTEX buprenorphine 8mg (as hydrochloride) tablet blister pack 	
	 ARTG 76774 SUBUTEX buprenorphine 2mg (as hydrochloride) tablet jar/can 	
	 ARTG 76775 SUBUTEX buprenorphine 8mg (as hydrochloride) tablet jar/can 	
	ARTG 120159 SUBOXONE 2/0.5 sublingual tablet blister pack	
	ARTG 120160 SUBOXONE 8/2 sublingual tablet blister pack	
	 ARTG 34091 TEMGESIC Buprenorphine 200 microgram (as hydrochloride) tablet blister pack 	
	 ARTG 12957 ISORDIL SUBLINGUAL Isosorbide dinitrate 5mg tablet bottle 	
1159	The Trade Product has been amended to include the supplier for the following products:	
	 ARTG 43083 THIOTEPA FOR INJECTION thiotepa 15mg powder for injection vial 	
	ARTG 13319 PROPYLTHIOURACIL 50mg tablet bottle	
1890	A proprietary form of Pulvule has been added to the Trade Suffixes for the following products:	
	• NIZAC 150 mg ARTG 96961	
	• NIZAC 300 mg ARTG 96963	

ID	Resolved issues	
2013	The pack quantity units and component quantity units have been amended to 'ampoule' for the following product:	
	 ARTG DBL DEXAMETHASONE PHOSPHATE 4mg/1mL (as sodium) injection USP ampoule 	
2217	As recommended by AMH and agreed by the Medicines Reference Group (MRG) in December 2008, those ingredients which have bases ending in "-ic acid" should be changed to end with "-ate". The current exceptions to this recommendation include folinic acid, folic acid and zoledronic acid.	
	In this release the following changes have been made to terms:	
	alendronic acid to alendronate	
	etidronic acid to etidronate	
	clodronic acid to clodronate	
	cromoglycic acid to cromoglycate	
	mycophenolic acid to mycophenolate	
	pamidronic acid to pamidronate	
	tiludronic acid to tiludronate	
3403	The numerator strengths have been amended for the following product:	
	ARTG 69834 STREPSILS DRY COUGH LOZENGES dextromethorphan hydrobromide 5mg blister pack	

ID	Resolved issues	
3671	The following sponsor names or sponsor abbreviations have been moved to the TF supplier field resulting in minor changes to terms.	
	Actavis	
	 Apotex (amended to APO where applicable) 	
	• DRLA	
	• Ebewe	
	• DP	
	 GA (GA-Amclav and Omepro-GA will be amended in a future release) 	
	Blackmores	
	Nutrition Care	
	Cenovis	
	• Lupin	
	• Max	
	• RL	
	• RBX	
	• MPPL	
	• LAPL	
	• SZ	
	• BW	
	• Bioglan	
	Biological Therapies	
	BioSource	
	Natures Way	
3844	The Other Strength Representation has been amended to 'equivalent to vasopressin 20 units/mL' for:	
	 ARTG 121673 PITRESSIN vasopressin 20 pressor units/1mL injection vial 	

ID	Resolved issues
4633	Ingredients have been added to the trade product suffix and TF suffix without strength where it is necessary to disambiguate the strengths for the following products:
	 ARTG 154440 Coveram 10 mg / 5 mg tablet: uncoated, 30 tablets
	 ARTG 154439 Coveram 5 mg / 10 mg tablet: uncoated, 30 tablets
	 ARTG 170797 REAPTAN 5MG/10MG perindopril arginine 5mg/ amlodipine besylate 10mg tablet bottle
	 ARTG 170798 REAPTAN 10MG/5MG perindopril arginine 10mg/ amlodipine besylate 5mg tablet bottle
	The changes to descriptions include:
	 TPP and CTPP PT Ingredient names have been inserted at the end of the suffix in brackets, separating ingredients with a "/" and no spaces on either side of /. Ingredient names include the BOSS ingredient without the hydration status.
	Note: Within TPUU descriptions the ingredient order will remain as is and will only be changed if it is seen as a safety issue. The current AMT governance structure requires safety issues should be referred to the Medicines Board/Support Group to assess the safety risk and determine what approach needs to be taken.
4948	The Medicines Board/Support Group has recommended that the total amount of ingredient should not be included for patches. The Other Strength Representation which included the total amount of fentanyl per patch has been removed from the following products:
	 ARTG 163066 DENPAX fentanyl 12 micrograms/hour transdermal patch ARTG 163068 DENPAX fentanyl 25 micrograms/hour transdermal patch ARTG 163064 DENPAX fentanyl 50 micrograms/hour transdermal patch ARTG 163065 DENPAX fentanyl 75 micrograms/hour transdermal patch
	ARTG 163067 DENPAX fentanyl 100 micrograms/hour transdermal patch ARTG 143894 FENPATCH 25 fentanyl 25 mcg/hr transdermal patch pouch
	ARTG 143904 FENPATCH 75 fentanyl 75 mcg/hr transdermal patch pouch
	ARTG 143895 FENPATCH 50 fentanyl 50 mcg/hr transdermal patch pouch ARTG 143880 FENPATCH 12 fentanyl 12 mcg/hr transdermal patch pouch
	patch pouch ARTG 143905 FENPATCH 100 fentanyl 100 mcg/hr transdermal patch pouch
5006	The following product has been retired and replaced with a new product with the correct pack size of 10 mL:
	ARTG 33565 Cerumol ear drops, 11 mL, bottle

ID	Resolved issues
5054	 The following product has been retired and replaced with a new product using the more appropriate form of injection: solution. ARTG 22852 Folic Acid (Phebra) 5 mg/mL injection: intravenous infusion, 5 x 1 mL vials
5122	 The following product has been retired and replaced with a new product which reflects the current product label. The sponsor has amended the label following customer feedback (including a haematologist group) to include the strength of both ferrous sulfate and the elemental iron. ARTG 154466 FERRO-LIQUID ferrous sulfate 30mg/mL oral liquid - solution bottle

2.5 Known issues

2.5.1 EFFECTIVETIME field

AMT's release files are in a format that is an extension of SNOMED CT Release Format 1 (RF1). AMT's file format adds trailing columns, which append Universally Unique Identifiers (UUIDs) and an EFFECTIVETIME field.

The EFFECTIVETIME field was designed to indicate the time that each row in the data files was last modified. This was a precursor to SNOMED CT's Release Format 2 (RF2) standard. However due to technical limitations AMT data has never populated this EFFECTIVETIME field, leaving it set to 28 September 2007.

Therefore consumers of AMT must disregard the EFFECTIVETIME field in AMT's extended RF1 format files. The history of change to AMT data may still be interpreted using the standard methods used for SNOMED CT RF1 data.

The EFFECTIVETIME field will remain set to 28 of September 2007 for AMT data released using AMT's Version 2 model (2.xx), in AMT's current extended RF1 format.

Note: The EFFECTIVETIME field within the reference sets is correctly set to the appropriate effective date.

2.5.2 Other issues

For other known issues please see Appendix A:.

3

Terminology release contents

3.1 Release Note

This Release Note accompanies the AMT terminology deliverables. Its purpose is to provide a brief description of the AMT terminology deliverables and their location, and also to provide links to supporting documentation relevant to the release.

3.2 Australian Medicines Terminology Release content

Data associated with this release is provided in three UTF-8 encoded, tabdelimited text files. The three core files are tabulated below.

SNOMED CT file type	File name
Concepts	Uuid_sct_concepts_au.gov.nehta.amt.standalone_2.26.txt
Descriptions	Uuid_sct_descriptions_au.gov.nehta.amt.standalone_2.26.txt
Relationships	Uuid_sct_relationships_au.gov.nehta.amt.standalone_2.26.txt

These files may be loaded into your preferred SNOMED CT compliant environment, however be aware that NCTIS have provided additional content to each of these files which may require your attention prior to importing this data. These additions are felt necessary to model medicines terminology appropriately.

Please note that the data files are not compatible with the CliniClue[®] browser.

3.2.1 Concepts table

The file is structured in a similar way to the Concepts file as distributed in the SNOMED CT-AU Release, details of which can be found in the *SNOMED CT technical reference guide*. There are some additional fields that the NCTIS are providing in conjunction with Australian developed content. Additional fields are shown in italics.

Field number	Column tag	Field Type
1	CONCEPTID	SNOMED CT identifier##
2	CONCEPTSTATUS	Integer(enum) - see <i>SNOMED CT</i> technical reference guide
3	FULLYSPECIFIEDNAME	String - see ++
4	CTV3ID	String
5	SNOMEDID	String
6	ISPRIMITIVE	Boolean - see <i>SNOMED CT technical</i> reference guide
7	CONCEPTUUID	UUID - see **
8	CONCEPTSTATUSUUID	UUID - see **
9	EFFECTIVETIME	datetime [YYYY-MM-DD-HH:MM:SS] – see ^ ^

Notes:

- ## 64-bit integer. This identifier should be used for the storing and sending of AMT concepts.
- ++ The maximum length of this field is 32,000 chars and may include XHTML.
- ** A UUID consists of 32 hexadecimal digits, displayed in five groups separated by hyphens, for a total of 36 characters.
- ^^ The EFFECTIVETIME field is currently defaulted to 28 of September 2007. See Section 2.5.1 for details.

3.2.2 Descriptions table

This file is structured in a similar way to the Descriptions file as distributed in the SNOMED CT-AU Release, details of which can be found in the *SNOMED CT technical reference guide*. There are some additional fields that the NCTIS are providing in conjunction with Australian developed content. Additional fields are shown in italics.

Field number	Column tag	Field Type
1	DESCRIPTIONID	SNOMED CT identifier##
2	DESCRIPTIONSTATUS	Integer(enum) - see <i>SNOMED CT</i> technical reference guide
3	CONCEPTID	SNOMED CT identifier##
4	TERM	String - see ++
5	INITIALCAPITALSTATUS	Boolean - see SNOMED CT technical reference guide
6	DESCRIPTIONTYPE	Integer(enum) - see SNOMED CT technical reference guide
7	LANGUAGECODE	String
8	DESCRIPTIONUUID	UUID - see **
9	DESCRIPTIONSTATUSUUID	UUID - see **
10	DESCRIPTIONTYPEUUID	UUID - see **
11	CONCEPTUUID	UUID – see **
12	LANGUAGECODEUUID	UUID - see **
13	CASESENSITIVITY	Boolean
14	EFFECTIVETIME	datetime [YYYY-MM-DD- HH:MM:SS] – see ^^

Notes:

- ## 64-bit integer. This identifier should be used for storing and sending of AMT descriptions.
- ++ The maximum length of this field is 32,000 chars and may include XHTML.
- ** A UUID consists of 32 hexadecimal digits, displayed in five groups separated by hyphens, for a total of 36 characters.
- ^ The EFFECTIVETIME field is currently defaulted to the 28th of September 2007. See Section 2.5.1 for details.

3.2.3 Relationships table

This file is structured in a similar way to the Relationships file as distributed in the SNOMED CT-AU Release, details of which can be found in the *SNOMED CT technical reference guide*. There are some additional fields that the NCTIS are providing in conjunction with Australian developed content. Additional fields are shown in italics.

Field number	Column tag	Field Type
1	RELATIONSHIPID	SNOMED CT Identifier##
2	CONCEPTID1	SNOMED CT Identifier##
3	RELATIONSHIPTYPE	SNOMED CT Identifier##
4	CONCEPTID2	SNOMED CT Identifier##
5	CHARACTERISTICTYPE	Integer(enum) - see SNOMED CT technical reference guide
6	REFINABILITY	Integer(enum) - see SNOMED CT technical reference guide
7	RELATIONSHIPGROUP	Integer – see SNOMED CT technical reference guide
8	RELATIONSHIPUUID	UUID - see **
9	CONCEPTUUID1	UUID - see **
10	RELATIONSHIPTYPEUUID	UUID - see **
11	CONCEPTUUID2	UUID - see **
12	CHARACTERISTICTYPEUUID	UUID - see **
13	REFINABILITYUUID	UUID - see **
14	RELATIONSHIPSTATUSUUID	UUID - see **
15	EFFECTIVETIME	datetime [YYYY-MM-DD- HH:MM:SS] – see ^ ^

Notes:

- **##** 64-bit integer. This identifier should be used for the storing and sending of AMT relationships.
- ** A UUID consists of 32 hexadecimal digits, displayed in five groups separated by hyphens, for a total of 36 characters.
- ^ The EFFECTIVETIME field is currently defaulted to the 28th of September 2007. See Section 2.5.1 for details.

3.2.4 History mapping reference set

The Australian Medicines Terminology now makes use of SNOMED CT status guidelines for concepts, their associated descriptions, and relationships. This means that the AMT release files now contain inactive components. To assist with this change, and included within the release, is an additional text file that describes these changes in status, provided in a machine-readable format. This file currently does not conform to SNOMED CT reference set specifications, but does use elements of what will be delivered as a reference set in future releases. The delivery date of this upcoming reference set is still to be finalised.

Releases of the concept file now contain rows with a status of '5 (Erroneous)'; in future releases this may also include other statuses. The description file also contains rows with a status of '8 (concept Retired)'. The additional text file supplied will contain information that will inform the user which concepts should now 'replace' these inactive concepts. The fields present in this file will be as follows.

Field	Field Type	Description
refSetId	SNOMED CT Identifier ^{##}	Concept ID for the description of the change that has been made. It will be equivalent to one of the following: • POSSIBLY EQUIVALENT TO
		REFERS TO
		SIMILAR TO
		MOVED FROM
		MOVED TO
		ALTERNATIVE
		• WAS A
		• REPLACED BY ³
		SAME AS
referencedComponentId	SNOMED CT Identifier ^{##}	ID for concept that has been retired.
targetComponentId	SNOMED CT Identifier ^{##}	ID for what the changed concept now is. For example, if a concept has been retired as a result of being erroneous, then this will be the concept ID for the concept that has 'replaced' it.

Notes:

64-bit integer.

3.2.5 Reference sets

The following reference sets are included within the AMT data set:

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

For complete details of these reference sets you should refer to the following documents included in the release bundle:

- Development Approach for Reference Sets AMT
- Reference Set Library NCTIS

³ Currently this file only represents REPLACED BY.

3.3 Documentation

3.3.1 Development approach for reference sets

This document captures and describes the development approach used in creating reference sets for use by the AMT community of practice. It also includes an explanation of the types of reference sets and how they are categorised for various purposes.

3.3.2 Reference set library

This document is a register of the clinical reference sets for use by the terminology community of practice. The reference sets have been developed by the National Clinical Terminology and Information Service (NCTIS) within NEHTA.

3.3.3 SNOMED CT release format 2 – reference set specifications

This document describes the reference set specifications released as part of the SNOMED CT Release Format 2.

3.4 Supporting documentation

The NCTIS provides documentation specific to the Australian Medicines Terminology Release. Users should also refer to documentation provided with the SNOMED CT-AU terminology release.

Supporting documentation can be downloaded from the NCTIS Secure Website⁴. These files are available only to current licence holders.

3.4.1 AMT supporting documentation

3.4.1.1 Australian Medicines Terminology editorial rules

This document provides the editorial rules that the NCTIS uses to govern the development of SNOMED CT compliant terminology specific to medicines. The most recent revision of the Australian Medicines Terminology Editorial Rules was in June 2009, to reflect changes to the models and recommendations from external stakeholders.

3.4.1.2 Australian Medicines Terminology UML class diagram

This document outlines the UML data model used for developing the Australian Medicines Terminology.

3.4.1.3 Australian Medicines Terminology technical specifications

This document provides a description of the AMT model in detail and the relationships between the core concepts and ancillary terminologies.

<https://nehta.org.au/aht>

3.4.2 SNOMED CT supporting documentation

3.4.2.1 SNOMED CT Technical Reference Guide

This document is produced by the IHTSDO[®] to accompany the SNOMED CT International Release and provides guidance for implementers with reference material related to the current release of SNOMED CT. The document includes file layouts, field sizes, required values and their meanings, and high-level data diagrams. It can be used to assist with installation and use of SNOMED CT. This guide is intended for SNOMED CT implementers, such as software developers. An information technology background is assumed. Clinical knowledge is not a prerequisite.

3.4.2.2 SNOMED CT Technical Implementation Guide

This document is produced by the IHTSDO to accompany the SNOMED CT International Release and provides guidance for SNOMED CT technical implementers such as vendors. The guide assumes information technology and software development experience.

3.4.2.3 SNOMED CT User Guide

This document is produced by the IHTSDO to accompany the SNOMED CT International Release and provides guidance for modellers and implementers on the content and principles used to model SNOMED CT. This guide is designed for project leaders, clinical staff, and product managers.

3.4.2.4 SNOMED CT Release Format 2 – Data Structures specification

This document describes SNOMED CT Release Format 2 (RF2).

3.5 AMT terminology viewers for Windows and Mac operating systems

AMT is released in a terminology viewer. The terminology viewer enables users to browse the content of AMT. The package of items within the ZIP format terminology viewer bundle consists of:

- AMT Viewer: Installation and user guide (in PDF format);
- AMT Viewer Licence (in PDF format); and either:
 - AMT Viewer for Windows Operating System; or
 - AMT Viewer for Mac Operating System.

4 References

[AHMC2008] Australian Health Ministers' Conference 2008, *National E-Health Strategy*, accessed January 2011, < http://www.ahmac.gov.au/cms_documents/National%20E-Health%20Strategy.pdf>.

Appendix A: Known issues list

Users should note that known issues listed in the AMT Release Note have been revised to ensure that only those issues that affect content accuracy are listed. This has resulted in the removal of a number of issues. These issues still remain logged within internal NEHTA issue management systems for future resolution.

The following types of issues have been removed:

- Minor changes to descriptions that do not affect interpretation or understanding of the description. However, a minor error resulting in internal inconsistency within the description will be retained.
- Product availability issues.
- Future work items.

Retained issues include:

- Data errors, for example an incorrect strength dosage form.
- Major changes to product trade names that may occur as sponsors update product packaging.
- Issues that require changes to release dosage forms will remain in the published list.

In addition to the above, users should note that:

- The ID number is the internal NEHTA issue identifier. This ensures that a published issue can be tracked against the NEHTA issue management system.
- TGA Label Names are generally used wherever issues include product names.
- The TGA registration number (the ARTG or Licence ID number) is also included.
- In cases where the product is not registered by TGA, a NEHTA identifier has been included.

ID	Known issues
325	The dosage form ointment for ARTG 18823 DIPROSONE OV betamethasone 0.5mg/g (as dipropionate) ointment tube will be amended to ointment: modified release in a future release.
	The dosage form cream for ARTG 18825 DIPROSONE OV betamethasone 0.5mg/g (as dipropionate) cream tube will be amended to cream: modified release in a future release.
	The dosage form ointment for ARTG 49381 ADVANTAN Methylprednisolone Aceponate 1mg/g ointment tube will be amended to ointment: fatty in a future release.
329	The dosage form Inhalation: pressurised will be amended to Inhalation: breath activated in a future release, for the following products:
	ARTG 67257 AIROMIR AUTOHALER salbutamol
	ARTG 71991 QVAR 50 AUTOHALER beclomethasone
	ARTG 71994 QVAR 100 AUTOHALER beclomethasone
373	The dosage form solution for ARTG 90749 GENRX LACTULOSE solution 0.68g/mL bottle will be amended to Oral Liquid, solution in a future release.
375	The preferred term 'other identifying information' will be amended in a future release for the following products:
	 ARTG 90196 Caverject Impulse 10 microgram will be amended to (2 x 10 microgram syringes); and
	 ARTG 90197 Caverject Impulse 20 microgram will be amended to (2 x 20 microgram syringes).
585	The unit dose form type of ampoule will amended to unit dose in a future release, for ARTG 55364 OCUFEN flurbiprofen sodium 300 microgram/mL eye drops ampoule.
704	The current dosage form solution: irrigation for ARTG 12107 Heparinised Saline (AstraZeneca) will be amended to injection: solution in a future release.
1040	Telfa 2140C MPP should read 'dressing non adherent 7.5 cm x 10 cm dressing, 6'.
	Telfa 6020C MPP and MPUU should both include 'self adhesive'.
	Telfa 7650C MPUU should include 'self adhesive'.
	These will be amended in a future release.
1125	The Other Identifying Information will be amended to 10 x 75 international units (5.46 microgram) vials, 10 x 1 mL diluent syringes in a future release for ARTG 93043 GONAL F 75 follitropin alfa (rch) 5.46 microgram (packs of ten).
1485	The ingredient name will be amended in a future release to phosphate sodium monobasic for ARTG 13368 Phosphate - Sandoz tablets.

ID	Known issues
1747	ARTG 29627 NEUTROGENA T/GEL CONDITIONER - 25 mL & 200 mL- form will be edited from 'application' to 'conditioner' in a future release.
	NEHTA 10002047 Ionil Rinse, HYDROLYZED COLLAGEN PROTEINS, Hair conditioner 250 mL-form will be edited from 'lotion' to 'conditioner' in a future release.
	ARTG 29628 NEUTROGENA T/GEL SHAMPOO coal tar 5mg/mL - 25 mL & 200 mL, ARTG 42848 ORION CETRIMIDE SHAMPOO cetrimide 20% w/v - 100 mL, ARTG 46373 NEUTROGENA THERAPEUTIC T/GEL PLUS SHAMPOO - 25 mL & 200 mL and ARTG 66821 SEBIZOLE SHAMPOO ketoconazole 20mg/g bottle - 100 mL-form will be edited from 'application' to 'shampoo' in a future release.
	ARTG 95879 STIEPROX LIQUID ciclopirox olamine 15mg/g shampoo bottle - 60 mL-form will be edited from 'solution' to 'shampoo' in a future release.
1798	A TF suffix of Turbuhaler will be added to the following products in a future release:
	 ARTG 60141 Oxis 12 microgram/actuation inhalation: powder for, 60 actuations, dry powder inhaler
	 ARTG 60142 Oxis 6 microgram/actuation inhalation: powder for, 60 actuations, dry powder
2190	AMT ingredient poliomyelitis virus type 3 (Sabin strain (Leon 12a1b)) live oral attenuated vaccine should be poliomyelitis virus type 3 (Sabin strain (Leon 12a1b)) live attenuated oral vaccine. This will be corrected in a future release.
2229	The TF suffix of Forte will be removed in a future release for ARTG 67248 CREON 25,000 pancreatic extract 300mg capsule bottle.
2262	The dosage form for the following products will be amended to 'nasal spray' in a future release:
	ARTG 18838 Drixine Adult Nasal Spray Bottle
	 ARTG 58736 LOGICIN RAPID RELIEF NASAL SPRAY oxymetazoline hydrochloride 0.5mg/mL
2724	The AMT viewer is not currently compatible with Windows 7. This will be scheduled for a future release.
2831	The TF suffixes of MT2440 will be amended to MTL101E in a future release for NEHTA 10000443 Tielle MT2440 (DRESSING-HYDROACTIVE (SUPERFICIAL WOUND-HIGH EXUDATE)), Dressings, island, 11 cm x 11 cm, 10.
	The TF suffixes of MT2442 will be amended to MTL2442 in a future release for NEHTA 10000444 Tielle MT2442 (DRESSING-HYDROACTIVE (SUPERFICIAL WOUND-HIGH EXUDATE)), Dressings, island, 18 cm x 18 cm, 5.
3409	The current ingredient Sorbitol solution (70 per cent) (non- crystallising) will be amended to sorbitol with a strength of 70% in a future release for ARTG 11287 Pfizer (Perth) SORBILAX.

ID	Known issues	
4887	The AMT Release 2.26 Medicinal Product Unit of Use reference set contains the following two concepts which will be removed from the reference set in a future release:	
	 933216461000036108 cyclopentolate 2.23 mg / 0.5 mL eye drops, 0.5 mL unit dose (medicinal product unit of use) 	
	 933216471000036100 cyclopentolate 4.45 mg / 0.5 mL eye drops, 0.5 mL unit dose (medicinal product unit of use) 	
	 45430011000036101 ropivacaine 333.7 mg/200 mL injection, bags 	
	 34955011000036100 fentanyl 400 microgram / 200 mL + ropivacaine 333.7 mg / 200 mL injection, 200 mL bag (medicinal product unit of use) 	
	 34957011000036105 fentanyl 800 microgram / 200 mL + ropivacaine 333.7 mg / 200 mL injection, 200 mL bag (medicinal product unit of use) 	
	These reference set members should not be used in the context of the implementation of this reference set.	

Appendix B: Towards standards for health information exchange in Australia

B.1 NEHTA

The National E-Health Transition Authority Limited (NEHTA) is a company established by the Australian, State and Territory governments in 2005 to develop better ways of electronically collecting and securely exchanging health information. As a collaborative vehicle, NEHTA has been assigned responsibility for a number of related projects, all aimed at establishing the foundations for the widespread and rapid adoption of electronic health (eHealth) across the Australian health sector.

eHealth is the electronic collection, management, use, storage and sharing of healthcare information. This information can include individual items such as test results, discharge summaries, vaccination history, medication history and diagnoses, to comprehensive medical records which keep all of this information about a person in one place. The governments of Australia recognise that eHealth and a personally controlled electronic health record (PCEHR) are vital to the achievement of major health reform in the next decade.

eHealth systems that can securely and efficiently exchange data can significantly improve how important clinical and administrative information is communicated between healthcare professionals. As a result, eHealth systems have the potential to unlock substantially greater quality, safety and efficiency benefits. eHealth has the capacity to benefit all Australians – individual consumers, healthcare providers and healthcare funders.

Over the next three years, NEHTA will deliver key components of the National E-Health Strategy, endorsed by Australian Health Ministers in late 2008. NEHTA will support the National E-Health Strategy within its current mandate and sets a clear vision for eHealth in Australia:

To enhance healthcare by enabling access to the right information, for the right person, at the right time and place [AHMC2008].

NEHTA's work program will provide national infrastructure and accelerated adoption supporting this strategic direction, and build towards a future personally controlled electronic health record system.

B.2 National Clinical Terminology and Information Service

The National Clinical Terminology and Information Service (NCTIS), established by the NEHTA, is developing the terminology and information products to support the requirements of eHealth for the Australian healthcare community.

In order for eHealth information systems to be interoperable and act intelligently (i.e. decision support) they must be able to record, read and interpret clinical information which is exchanged between systems (e.g. drug names, diagnoses and the like). A task for the NCTIS is therefore to identify methods of supporting the implementation of clinical terminology and clinical information standards across the Australian healthcare industry.

B.3 Clinical information

Interoperability across health sectors and geographical boundaries is a core requirement to enable information sharing across eHealth systems. Seamless flow of information across the health sector is essential to health care delivery and reform in the future. Nationally-defined clinical information standards, and their adoption within products developed by industry, will help instil confidence that products are fit for purpose, and are interoperable across healthcare providers.

The NCTIS is responsible for establishing the structure of, and data contained in, clinical communications such as referrals, discharge summaries, pathology results and prescriptions. The clinical information specifications will be standardised across all health IT systems, and will be built upon existing standards, extending these as necessary.

B.4 Clinical terminology

A clinical terminology is a structured vocabulary used in clinical practice to accurately describe the care and treatment of patients. Clinical terminology covers complex concepts such as diseases, operations, treatments and medicines. Healthcare providers need to capture and record this type of information about their patients, to provide a history of care for their own purposes and to share with other providers. Consistent and accurate articulation and interpretation of this information is critical to the process of safe exchange. For example, errors in recording the name of a medicine or transcribing from one place to another can lead to serious consequences for the patient.

A standard clinical terminology in conjunction with eHealth information systems that can intelligently interpret the clinical information being input, will significantly reduce these errors and deliver more accurate and improved recording and checking of information.

The NCTIS within NEHTA is responsible for managing, developing and distributing SNOMED CT Australian Release and the Australian Medicines Terminology (AMT) in Australia. This responsibility extends to distributing and licensing SNOMED CT on behalf of the International Health Terminology Standards Development Organisation (IHTSDO).

B.5 SNOMED CT and SNOMED CT-AU

SNOMED CT, the internationally pre-eminent clinical terminology, has been recommended by NEHTA and endorsed by the Australian, State and Territory governments as the preferred clinical terminology for Australia. The Systematized Nomenclature of Medicine, Clinical Terms (SNOMED CT) is considered the most comprehensive, multilingual clinical healthcare terminology. When implemented in software, SNOMED CT represents clinical relevant information consistently, reliably and comprehensively as an integral part of the electronic health record.

SNOMED CT Australian Release (SNOMED CT-AU) is the Australian extension to SNOMED CT, and includes the international resources along with all Australian developed terminology and documentation for implementation in Australian clinical IT systems. SNOMED CT-AU provides local variations and customisations of terms relevant to the Australian healthcare sector. All terminology files are prepared to a format and standard that is consistent with the IHTSDO releases. SNOMED CT-AU is designed to:

- Provide a standard clinical language to support effective health data exchange.
- Represent clinically relevant information, as an integral part of producing electronic health records.
- Provide a logical structure for terminology components that is simple to navigate.
- Provide integrated documentation and implementation guidance that is applicable for all released terminology components.

The SNOMED CT-AU release bundle also includes reference sets that have been developed by the NCTIS. A reference set is a restricted list of SNOMED CT components to fulfil a particular purpose. Terms that are not relevant to the Australian healthcare sector are not included in the reference sets in SNOMED CT-AU.

B.6 International Health Terminology Standards Development Organisation

To advance the uptake of SNOMED CT globally, NEHTA worked with nine other countries to establish the International Health Terminology Standards Development Organisation (IHTSDO). The IHTSDO owns and administers the rights to SNOMED CT, and supports and works to enable the uptake and appropriate use of SNOMED CT in health systems, services and products around the world.

Further information on the IHTSDO can be found at <http://www.ihtsdo.org>.