

# Australian Technical Specification

## **Electronic transfer of prescriptions**

### **Part 3: Platform implementation specific e-prescription HL7 Clinical Document Architecture implementation guide**



This Australian Technical Specification was prepared by Committee IT-014, Health Informatics. It was approved on behalf of the Council of Standards Australia on 29 April 2013.

This Technical Specification was published on 20 May 2013.

The following are represented on Committee IT-014:

- Aged Care Association Australia
- Allied Health Professions Australia
- Australasian College of Health Informatics
- Australian and New Zealand College of Anaesthetists
- Australian College of Nursing
- Australian Healthcare and Hospitals Association
- Australian Industry Group
- Australian Information Industry Association
- Australian Institute of Health & Welfare
- Australian Institute of Radiography
- Australian Medical Association
- Australian Private Hospitals Association
- Commonwealth Department of Health and Ageing
- Commonwealth Department of Human Services
- Consumers Federation of Australia
- Consumers' Health Forum of Australia
- CSIRO e-Health Research Centre
- Department of Health (Vic.)
- Department of Health (WA)
- Edith Cowan University
- Engineers Australia
- GS1 Australia
- Health Informatics Society of Australia
- Health Information Management Association of Australia
- HL7 Australia
- Medical Software Industry Association
- National E-Health Transition Authority
- National ICT Australia
- NSW Ministry of Health
- Queensland Health
- Royal Australian College of General Practitioners
- Royal Australian College of Medical Administrators
- Royal College of Pathologists of Australasia
- The Pharmacy Guild of Australia
- The Royal Australian and New Zealand College of Radiologists
- University of Western Sydney

Additional Interests:

- ACT Health
- ArgusConnect
- Australian Healthcare Messaging Laboratory
- British Telecom Australasia
- BT Global Services Australasia
- CAL2CAL Australia
- Casprel
- Commonwealth Department of Veterans' Affairs
- DH4
- Equipose International
- eRx Script Exchange
- Health Communication Network
- HealthLink
- HL7 Systems & Services
- Lantana Group
- Llewelyn Grain Informatics
- Maclsaac Informatics
- Medical Communications Associates
- Medical-Objects
- Medisecure
- MIMS Australia
- Ocean Informatics
- Pharmaceutical Society of Australia
- Pharmacy 4u
- Society of Hospital Pharmacists of Australia
- South Eastern Sydney Local Health District
- University of Queensland
- Victoria Avenue Medical Centre

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Technical Specification through their representation on the Committee.

#### **Keeping Standards up-to-date**

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting [www.standards.org.au](http://www.standards.org.au)

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.org.au](mailto:mail@standards.org.au), or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

# Australian Technical Specification

## Electronic transfer of prescriptions

### Part 3: Platform implementation specific e-prescription HL7 Clinical Document Architecture implementation guide

First published as ATS 4888.3—2013.

#### **COPYRIGHT**

© Standards Australia Limited

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 74342 445 2

## PREFACE

This Australian Technical Specification was prepared by the Standards Australia Technical Committee IT-014, Health Informatics.

The Standards Australia Technical Committee IT-014 recognizes the work of the Standards Australia Working Group IT-014-06-04, Prescription Messaging, in the preparation of this Technical Specification.

The purpose of this document is to define the representation of a Prescription Request using HL7 *Clinical Document Architecture Release 2* for the Electronic Transfer of Prescriptions (ETP) Specification.

This document is the third in a series of six Technical Specifications that collectively define a method for ETP in Australia. The series comprises the following parts:

### ATS

4888		Electronic transfer of prescriptions
4888.1	Part 1:	Platform independent (logical) information model to support electronic transfer of prescriptions
4888.2	Part 2:	Platform independent (logical) services model to support electronic transfer of prescriptions
4888.3	Part 3:	Platform implementation specific e-prescription HL7 Clinical Document Architecture implementation guide
4888.4	Part 4:	Platform implementation specific dispense record HL7 Clinical Document Architecture implementation guide
4888.5	Part 5:	Platform implementation specific prescription request HL7 Clinical Document Architecture implementation guide
4888.6	Part 6:	Platform implementation specific web service

The term ‘normative’ has been used in this Technical Specification to define the application of the appendices to which it applies. A ‘normative’ appendix is an integral part of a Technical Specification.

This publication has been developed with assistance from the Australian Government Department of Health and Ageing. The Australian Government makes no representation or warranty that the information in this publication is correct and accurate.

Standards Australia wishes to thank the Department of Health and Ageing for its continued financial support in helping to develop this Australian Technical Specification.

NOTE: This document is an Australian Technical Specification; it is not an Australian Standard. An Australian Technical Specification is a normative document that has been subject to a limited form of transparency and does not have the support of the full consensus process normally associated with an Australian Standard.

An Australian Technical Specification is often prepared in a field where the subject matter, or a related aspect such as the regulatory environment, is undergoing rapid change and where speed of delivery, rather than full consensus, is of paramount importance. In such cases, it would normally be expected that an Australian Standard would eventually be developed to supersede the Technical Specification.

An Australian Technical Specification is subject to at least limited peer review with the option of going to full Public Comment if this is deemed warranted.

It is the goal in the coming years for these Specifications to progress to Australian Standards; however, the Working Group acknowledges that, for this to occur, a number of these 'external factors' will need to mature and that these factors may also augment the content of the Specification prior to its progression to a Standard.

Given the large number of stakeholders involved in ETP (including at least two existing Prescription Exchanges, at least 40 software vendors, and more than 5000 pharmacies and 40 000 prescribers), it is clear that a pathway for transition to this Specification by the key stakeholders will need to be agreed upon.

The support and management of the stakeholders in this transition will be a key element in the adoption of this Specification across the sector; however, the responsibility for transition is outside the scope of work for the Working Group which has prepared these documents.

This transition is also likely to affect any assessment of conformance against these Specifications and it should be noted that any conformance assessment should take into consideration 'real world' maturity and an ability to conform fully to this Specification. In this regard a conformance profile may be required to differ from this Specification; however, the producers of this profile should be explicit as to where those differences lie and why they are present.

#### **Important Notice re HL7 International® Intellectual Property**

This document includes extracts of Health Level Seven® International ("HL7 International") standards and other "HL7 International Material" as defined below. The publication, reproduction and allowed use of such extracts are governed by various agreements between HL7 International, HL7 Australia Inc and Standards Australia Limited.

The copyright in HL7 International Material is owned by HL7 International and protected by the copyright laws of Australia and the United States and by provisions of international treaties. HL7 International reserves all rights to HL7 International Material and any use, copying or distribution (either with or without a fee) of HL7 International Material in any form and without specific written authorisation by HL7 International is strictly prohibited (except as otherwise permitted under the copyright laws of Australia and the United States).

"HL7 International Material" collectively and individually means all work product developed, published and or released by HL7 International, including standards in any format (e.g. Word, PDF, HTML, XML, zip, Access database), implementation guides, databases and other electronic or fixed data or information of any kind distributed through any channel (including through any HL7 Affiliate).

Health Level Seven International®, HL7®, HL7 International® and Health Level Seven® are registered trademarks of Health Level Seven International.

Further information on the protection and some allowed uses of HL7 intellectual property may be found in the "HL7 Policy Governing the use of HL7® International Standards and other intellectual property" as published on the HL7 International Website at:

<http://www.hl7.org/legal/ippolicy.cfm>.

CONTENTS

*Page*

FOREWORD..... 6

SECTION 1 SCOPE AND GENERAL

    1.1 SCOPE..... 7

    1.2 INTENDED AUDIENCE ..... 7

    1.3 NORMATIVE REFERENCES ..... 8

    1.4 TERMS, DEFINITIONS AND ACRONYMS ..... 8

    1.5 KEYWORD INTERPRETATIONS ..... 9

    1.6 CONFORMANCE ..... 11

    1.7 LIFECYCLE AND DOCUMENT MANAGEMENT ..... 12

SECTION 2 GUIDE FOR USE

    2.1 GENERAL..... 13

    2.2 CLINICAL DOCUMENT ARCHITECTURE RELEASE 2 ..... 13

    2.3 MAPPING INTERPRETATION ..... 14

    2.4 CDA EXTENSIONS..... 28

    2.5 W3C XML SCHEMA..... 28

    2.6 SCHEMATRON ..... 28

    2.7 IMPLEMENTATION STRATEGIES ..... 29

SECTION 3 E-PRESCRIPTION CONTEXT DATA HIERARCHY..... 30

SECTION 4 E-PRESCRIPTION CONTENT DATA HIERARCHY..... 31

SECTION 5 ADMINISTRATIVE OBSERVATIONS

    5.1 GENERAL..... 37

    5.2 CDA R-MIM REPRESENTATION..... 37

SECTION 6 CDA HEADER

    6.1 GENERAL..... 41

    6.2 CLINICALDOCUMENT..... 41

    6.3 LEGALAUTHENTICATOR ..... 46

    6.4 CUSTODIAN ..... 52

    6.5 ENCOMPASSINGENCOUNTER ..... 56

SECTION 7 CONTEXT DATA SPECIFICATION—CDA MAPPING

    7.1 E-PRESCRIPTION ..... 62

    7.2 SUBJECT OF CARE ..... 65

    7.3 PRESCRIBER ..... 84

    7.4 PRESCRIBER ORGANIZATION ..... 96

SECTION 8 CONTENT DATA SPECIFICATION—CDA MAPPING

    8.1 E-PRESCRIPTION ..... 108

    8.2 PRESCRIPTION ITEM ..... 110

    8.3 OBSERVATIONS ..... 155

    8.4 BODY WEIGHT ..... 159

    8.5 BODY HEIGHT ..... 164

    8.6 PRESCRIPTION NOTE DETAIL ..... 168

This is a free 9 page sample. Access the full version online.

## APPENDICES

A	COMMON PATTERNS .....	172
B	AUSTRALIAN CDA EXTENSIONS .....	195
C	VOCABULARIES/CODE SETS .....	208
D	CDA NARRATIVES .....	222

BIBLIOGRAPHY .....	223
--------------------	-----

## FOREWORD

### HL7 CLINICAL DOCUMENT ARCHITECTURE

CDA is a document mark-up standard that specifies the structure and semantics of clinical documents for the purpose of exchange and unambiguous interpretation at both human and system levels.

The following are some of the advantages of CDA:

- (a) It is machine computable and human readable.
- (b) It provides a standardized display of clinical information without loss of clinical meaning.
- (c) It provides assurance of clinical quality and safety more effectively than message-based interfaces by storing and displaying the clinical data as entered by the clinician.
- (d) It provides better support than HL7 V2 messages for—
  - (i) more complex information structures, such as pathology synoptic reporting; and
  - (ii) terminologies such as SNOMED CT-AU®.<sup>1</sup>
- (e) It supports legal attestation by the clinician (requiring that a document has been signed manually or electronically by the responsible individual).
- (f) It is able to be processed by unsophisticated applications (e.g. it can be displayed in web browsers).
- (g) It provides a number of levels of compliance to assist with technical implementation and migration.
- (h) It aligns Australia with e-health initiatives in other countries (e.g. Canada, the UK, the USA, Brazil, Germany and Finland).

---

<sup>1</sup> SNOMED CT-AU® is a registered trademark of the International Health Terminology Standards Development Organisation.

## STANDARDS AUSTRALIA

### Australian Technical Specification Electronic transfer of prescriptions

#### Part 3: Platform implementation specific e-prescription HL7 Clinical Document Architecture implementation guide

## SECTION 1 SCOPE AND GENERAL

### 1.1 SCOPE

This Technical Specification provides requirements for implementing the logical model detailed in ATS 4888.1, Part 1: *Platform independent (logical) information model to support electronic transfer of prescriptions*, as an HL7 Clinical Document Architecture Release 2 (CDA) XML document. The primary aim of this Technical Specification is to take implementers step by step through mapping each data component of ATS 4888.1 to a corresponding CDA attribute or element.

This Technical Specification contains descriptions of both constraints on the CDA and, where necessary, custom extensions to the CDA, for the purposes of fulfilling the requirements for Australian implementations of an electronic prescription (e-prescription). The resulting CDA document would be used for the electronic exchange of e-prescriptions between healthcare providers.

In addition, this Technical Specification presents conformance requirements against which implementers can attest the conformance of their systems.

### 1.2 INTENDED AUDIENCE

This Technical Specification is intended to be read and understood by software architects and developers, implementers of clinical information systems in various healthcare settings and IT-aware clinicians.

This Technical Specification and related artefacts are highly technical in nature and the audience is expected to be familiar with the language of health data specifications and to have some familiarity with health information standards and specifications such as CDA, and AS 4700.6—2006, *Implementation of Health Level Seven (HL7) Version 2.4*, Part 6: *Referral, discharge and health record messaging*. Definitions and examples are provided to clarify relevant terminology usage and intent.

This is a free preview. Purchase the entire publication at the link below:

**ATS 4888.3 : 2013 : EN : COMBINED PDF**

- 
- ⊙ Looking for additional Standards? Visit SAI Global Infostore
  - ⊙ Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
- 

Need to speak with a Customer Service Representative - Contact Us