AS 4700.6—2013

Australian Standard®

Implementation of Health Level Seven (HL7) Version 2.5

Part 6: Referral, discharge and health record messaging

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

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Implementation of Health Level Seven (HL7) Version 2.5

Part 6: Referral, discharge and health record messaging

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PREFACE

This Australian Standard 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-014-06-06, Collaborative Care Communications, in the preparation of this Standard.

This purpose of this Standard is to cover implementation of the Health Level Seven (HL7) Version 2.5 protocol, for communication of clinical patient-centred information between health service providers in Australia. It is applicable to clinical communications covering Discharge, Shared Care, Event Summaries, and notification of Shared Electronic Health Record Systems. The original focus was on Discharge Referral, but stakeholder requirements have led to its use in the more general area of patient care messaging.

This Standard supersedes AS 4700.6—2006, *Implementation of Health Level Seven (HL7) Version 2.4*, Part 6: *Referral, discharge and health record messaging*, which will remain current notwithstanding the publication of this document, in respect of HL7 Version 2.4 implementations. AS 4700.6—2004, *Implementation of Health Level Seven (HL7) Version 2.3.1*, Part 6: *Referral and discharge summary*, will remain current in respect of HL7 Version 2.3 and Version 2.3.1 implementations.

The HL7 Version 2.5 protocol covers a wide range of data interchange functions. This Standard focuses on the HL7 discharge and referral, shared care and event summary messages. A Discharge Referral message is analogous to a paper-based discharge referral document and has more comprehensive requirements than the less-specific Discharge Summary.

All efforts have been made to minimize divergence from the underlying HL7 Version 2.x protocols (as published by HL7 Inc), in order to ensure maximum compatibility with future versions of HL7 Version 2.x. Nevertheless, some significant enhancements have been proposed in this Standard, where needed to represent patient care related concepts adequately.

The term ‘informative’ is applied in this Standard to content that is provided for information and guidance only and is not to be construed as definitive.

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FOREWORD

HL7 Version 2.5 (V2.5) is a healthcare application protocol accredited as a Standard by the American National Standards Institute. ‘Level Seven’ refers to the highest level of the International Organization for Standardization communications model for Open Systems Interconnection (OSI)—the application level. Issues within the application level include definition of the data to be exchanged, the timing of the exchange and the communication of certain errors to the application. This level supports such functions as security checks, identification of the participants, availability checks, negotiation of exchange mechanisms and, importantly, structuring the data exchanges themselves.

HL7 focuses on the interface requirements of the entire healthcare organization. It allows development along the fastest possible track to the unique requirements of already installed hospital and departmental systems, some of which use mature technologies.

Australia already has an existing base of healthcare institutions that use the HL7 protocol to exchange key sets of data between different computer application systems. While HL7 is concerned with addressing immediate needs, there is a very strong focus on convergence with other Standards development activities in the USA and international HL7 initiatives in countries including Canada, China, Finland, Germany, India, Japan, Korea, the Netherlands, and the United Kingdom.

The HL7 protocol is a collection of standard formats that specify the implementation of interfaces between computer applications. It is not rigid. Flexibility is built into the protocol to allow compatibility for specialized data sets that have facility-specific needs. One of HL7’s strengths is its inbuilt flexibility. However, it is also one of its weaknesses. It is open to misinterpretation in its structure and format. HL7 is based on the health environment in the USA. Implementation of the HL7 V2.5 Standard in the Australian health environment requires a common and consistent approach.

This is not a stand-alone document for review in isolation. A basic understanding of HL7 is essential, as this Standard is based on and frequently refers to the HL7 V2.5 Standard.

In order to communicate clinical information, which is heavily context-dependent, it has been necessary to use local extensions to the V2.5 Standard. These extensions will be proposed for inclusion in a later version of HL7 V2.x. A referral, discharge or health record message may, under different circumstances, be required to include almost any data from a health record. This widens the scope of such a message and requires more complex contextual and relationship information applying to the included segments. A simpler message context is inferable from the trigger event but this is insufficient for the more general information in Referral, Discharge, Health Records, Event Summaries and Shared Care. This message has needed to include and combine segments designed for use in simpler, more specific messages where their context is implicit from the trigger event. This applies particularly to History, Observations, Medications, Procedures, Problems, Goals and Pathways.

HL7 has not been widely used for structured clinical communications. When available, HL7 V3 Messaging and Clinical Document Architecture (CDA) are expected to be increasingly used for new applications. This V2 message specification is currently being used to inform the requirements and design of these future standards.

Frequent reference is made to AS 4700.1—2005 and AS 4700.1—2006, which cover the implementation of HL7 Versions 2.4 and 2.5 for patient administration within Australia. AS 4700.1—2005 and AS 4700.1—2006 provide an important foundation for the building of most clinical healthcare messages. Only those segments that have been identified as relevant have been detailed in the Australian implementation standards. Refer to the HL7 V2.5 protocol for all other message segments.

Where a segment is extended by the addition of new fields, these are added at the segment end and are to be regarded as ‘Local Usage’. It is intended that they be proposed for inclusion in a later release of the HL7 Standard.

Specified terminology and coding is required for meaningful information exchange, and this therefore forms part of this Standard.

The mission of Working Group IT-014-06-06 is to—

(a) advise on the appropriateness of international Standards;

(b) recommend specific Standards and/or implementation guidelines for messages covering patient discharge and referral together with more general clinical services not covered by the other AS 4700 Standards; and

(c) consider the need for related Standards.

STANDARDS AUSTRALIA

Australian Standard
Implementation of Health Level Seven (HL7) Version 2.5

Part 6: Referral, discharge and health record messaging

1 SCOPE

1.1 General

This Standard covers implementation of electronic referral messages using the HL7 Version 2.5 (V2.5) protocol with local extensions, which will be proposed for inclusion in a later version of HL7 V2.x. It covers communication between health service providers both within and outside hospitals, including communication for shared care and on discharge, other event summaries and notifications to shared electronic health record and clinical decision support systems.

This Standard includes the data segments and data elements that are mandatory (required), optional or conditional (required, based on a condition), and relevant usage notes in the Australian health environment.

The Standard provides consistent use of data definitions and takes cognizance of definitions used by or in the International Organization for Standardization (ISO), the National Health Data Dictionary (NHDD), the National Association of Testing Authorities Australia, and The General Practice Computing Group and its General Practice Data Model and Core Dataset (co-sponsored with the Australian Department of Health and Ageing).

This Standard deals with representation of clinical information for the purposes of sharing and transferring patient care. There may be additional administrative, financial, and eligibility aspects of referral, which are outside the scope of this Standard, and have been excluded.

The message structure described in this Standard is intended to communicate information from one clinical provider or organization to another (potentially via a shared electronic health record), and should be used wherever there is a complete or partial transfer of care, as occurs on discharge from a hospital or other care provider. Where used for transfer of care, the message will typically contain referral details as well as a discharge or other event summary. Relevant definitions are included in Clause 4.

Clinical management by cooperating providers mandates health service messaging built on agreed semantic exchange. While the message protocols described in this Standard employ a required level of coding as in the HL7 tables, they do not specify any particular controlled vocabulary for the broader area of clinical concept representation. A logical next step in terminology agreement should address the headings used in referral, and a code set such as SNOMED CT®[1] or LOINC®[2] should be considered for this.

The HL7 messages detailed here have the capability for but not the requirement of exchanging clinical data, and the segments have the capacity to include flexible structures containing both coded and free-form representations.

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1 Systematized Nomenclature of Medicine Clinical Terms. SNOMED® and SNOMED CT® are registered trademarks of the International Health Terminology Standards Development Organisation.

2 Logical Observation Identifiers Names and Codes.