




Australian Government
Australian Digital Health Agency



Aged Care Clinical Information System Standards Recommended minimum software requirements

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1 Introduction

1.1 Purpose

The Australian Digital Health Agency (the Agency) initiated the Aged Care Clinical Information System (ACCIS) Standards project in connection with the Department of Health and Aged Care (DoHAC) to address recommendations of the Royal Commission into Aged Care Quality and Safety. The Royal Commission final report was released in March 2021 included 148 recommendations.

The ACCIS Standards have addressed two recommendations. Recommendation 68 requires ‘... every approved provider ... uses a digital care management system (including an electronic medication management system) meeting a standard set by the Australian Digital Health Agency and interoperable with My Health Record’ [COMM2020].

The project also supports part of recommendation 109 that highlights the need for “interoperability of information and communications systems to enable the sharing of data and information about people receiving care between aged care providers and relevant government agencies” [COMM2020].

The ACCIS Standards will support residential aged care homes and software developers to achieve better connections between CIS, eMM and national infrastructure.

The ACCIS Standards have three deliverables:

1. *Gap analysis* and environment scan of digital health standards to identify existing and emerging standards for use in aged care
2. *Recommended minimum software requirements* for clinical information systems used in residential aged care homes (this document)
3. *Road map* for recommendations on adoption, implementation, and identification of development work for digital health standards in aged care

This document is the second deliverable which establishes the recommended minimum requirements for implementation within Residential Aged Care Homes (RACH) CIS. These requirements were derived from the gap analysis (see point 1 above).

The recommended minimum requirements references other technical standards, which collectively describes the recommended technical specifications a CIS needs to satisfy to move towards interoperability. The Agency will continue to work with software developers to enhance these requirements to become more encompassing and further improve interoperability between CISs. The Agency will create a roadmap to outline the key deliverables for implementation (see point 3 above).

1.2 Intended audience

The intended audience for this document is the aged care sector including but not limited to RACH CIS developers, electronic Medication Management (eMM) developers, managers of aged care homes, clinicians, jurisdictions, peak bodies, standards developing organisations (SDO), Department of Health and Aged Care (DoHAC) and other government agencies.

1.3 Scope

This document contains software requirements pertaining to CISs and eMMs systems operating within RACHs.

1.3.1 Out of scope

This document does not include:

- requirements relating to clinical practices and workflows
- business practices and workflows relating to the operation of RACHs
- requirements unrelated to the aged care sector
- all matters relating to compliance or policy
- resident/relative/carer facing information channels.

1.4 Overview

The Australian Digital Health Agency (the Agency) has worked with the Department of Health and Aged Care (DoHAC) to address recommendations of the Royal Commission into Aged Care Quality and Safety. The Royal Commission final report was released in March 2021 included 148 recommendations.

The Aged Care Clinical Information System (ACCIS) Standards contribute to two recommendations. Recommendation 68 relates to the universal adoption of digital technology and My Health Record in the aged care sector. Recommendation 109 relates to “interoperability of information and communications systems to enable the sharing of data and information about people receiving care between aged care providers and relevant government agencies”.

Standards create consistency and compatibility, support a single source of truth, and enable interoperability. This document describes minimum recommended software requirements that, by their nature, describe nationally consistent software features for CIS and eMM software operating in residential aged care homes. This document is an important step in standardising aged care software systems.

Efforts to standardise software systems aligns to the interoperability principles stated in the National Healthcare Interoperability Plan [Agency2023c]. The sections in this document specifically touch on the following interoperability principles:

- health information is discoverable and accessible
- national healthcare identifiers are used across the healthcare sector
- national digital health standards and specifications are agreed and adopted
- core national healthcare digital infrastructure is used across the sector
- collaboration and stakeholder engagement underpins interoperability.

The standardising of software systems needs to reflect the above interoperability principles.

The Agency provides resources to facilitate the on-boarding of software developers operating in digital health. The requirements in this document will have supporting information available in the public domain.

2 Connections to national systems

This section describes the recommended minimum requirements for CIS and eMM products when connecting to national systems.

CISs contain a broad range of clinical information for each resident. A CIS may include eMM functionality to author and maintain electronic medication charts.

An electronic national residential medication chart (eNRMC) is an electronic medication chart that is specific to residential aged care homes that acts as a single source of truth for a patient or resident, consolidating all important information about the medicines they have been prescribed, supplied and administered. [DoHAC2023]

Section 2.2 applies to software that includes eMM functionality.

2.1 Clinical information systems

This section is specific to all CISs servicing the aged care sector. It is not intended to apply to software that is primarily an eMM and not a CIS. See glossary for more information.

ACCISS-005	Uploading documents to My Health Record
	The software should have the capability to upload the Aged Care Transfer Summary to My Health Record.
Applicable to:	Aged Care CIS
Notes:	<p>The Aged Care Transfer Summary is a My Health Record product that comprises three documents, the residential care transfer reason (RTR), residential care health summary (RHS) and residential care medication chart (RMC). The Australian Digital Health Agency has technical specifications that describes this document [AGENCY2023a].</p> <p>The software would need to be conformant to the HI service conformance assessment scheme prior to gaining production access to the My Health Record system. Onboarding processes to the MHR system is publicly available.</p>
Trace:	Royal Commission into Aged Care and Safety Recommendation 68.

ACCISS-010

Download and Render documents in My Health Record

The software should have the capability to download and render the following My Health Record document types:

- Aged Care Transfer Summary
- Discharge Summary
- Advance Care Planning Information
- Goals of Care.

Applicable to: Aged Care CIS

Notes: The CIS should be able to download and render clinical documents to enable quality continuity of care. The Australian Digital Health Agency has technical specifications that describes these clinical documents [AGENCY2022]. Onboarding processes to the MHR system is publicly available.

Trace: Royal Commission into Aged Care and Safety Recommendation 68.

ACCISS-015

Aged Care Business-to-Government API Gateway

The software should connect to the Aged Care Business-to-Government Application Programming Interface (API) gateway.

Applicable to: Aged Care CIS

Notes: The gateway permits the upload of mandatory reports to DoHAC. This eases the administrative load on RACHs.

ACCISS-020

Australian Immunisation Register

The software should integrate to the Australian Immunisation Register (AIR) via B2B web services so that a residents immunisation history can be uploaded, downloaded, and displayed.

Applicable to: Aged Care CIS

Notes: Incorporating immunisation data into the local health record will assist with preventive health planning, improves quality of care and is especially relevant during transfers of care for older people living in RACHs. Medicare Online and PBS software developers are required to integrate AIR functionality into their software product to obtain a Notice of Integration (NOI), where users of your product include health professionals who are eligible to administer vaccinations or administrators required to submit vaccination information to the AIR.

Connecting to the AIR API also allows for a better user experience as it reduces reliance on web portals.

2.2 Electronic medication management systems

This section only applies to CIS that have eMM functionality.

ACCISS-025 Create and upload prescriptions to the National Prescription Delivery Service

If the software supports eMM functions, the software should have the capability to create and upload chart-based electronic prescriptions to the National Prescription Delivery Service.

Applicable to: eMM

Notes: Software supporting chart-based electronic prescriptions simplify the dispensing workflow and contributes to positive clinical outcomes. This implies that the electronic medication chart conforms to the Electronic National Residential Medication Charts (eNRMC) Transitional Arrangement [DoHAC2023]

ACCISS-030 National Real Time Prescription Monitoring

If the software supports eMM functions, the software should allow seamless integration with the Real Time Prescription Monitoring (RTPM) system.

Applicable to: eMM

Notes: Prescribers have a legal obligation (in some States and Territories) to view the RTPM system during prescribing events (including when creating charts). Understanding recent prescribing and dispensing events, including events that may not be detailed on the current RACH chart, contributes to positive clinical outcomes.

Some State/Territory RTPM systems are web portals so seamless integration might be a link to the RTPM portal for the relevant State/Territory or other mechanism to facilitate the viewing of the RTPM system.

2.3 Relevant publications

All relevant publications for connecting CIS and eMM to national systems are detailed below. Links to publications are included in 'Relevant Publications Links' below.

- National Authentication Service for Health
- HI Service Conformance Assessment Scheme
 - HI Service Conformance Profile
 - Technical interface specifications (Services Australia)
- My Health Record Conformance Assessment Scheme
 - My Health Record Common Conformance Profile
 - My Health Record Connecting Systems Profile

- Clinical document conformance Profile (various)
- Security Requirements for MHR Conformance Profile (draft)
- CDA Packaging specification
- Rendering specification
- My Health Record Logical Service specification
- My Health Record Technical Service specification
- Electronic Prescribing Conformance Assessment Scheme (for eMMs)
- Real Time Prescription Monitoring technical specifications relevant to the State/Territory (for eMMs)
- Australian Immunisation Register technical specifications.

3 Standard payload formats for exchange

This section describes the recommended requirements for the structure of payloads for CIS that have eMM functionality, and the types of data they should contain when exchanging payloads outside organisational boundaries or to other systems within the home (e.g., RACH CIS -> RACH eMM).

3.1 Electronic medication management systems

This section only applies to CIS that have eMM functionality.

ACCISS-035

Author Electronic National Residential Medication Charts

The software should have the capability to author eNRMC conformant medication charts.

Applicable to: eMM

3.1.1 Legal frameworks

There are multiple legislative, technical and conformance requirements that can be applicable depending on: the type of script (PBS/non PBS funded); the State/Territory the software operates in; the prescribing/dispensing event occurs.

- Conformance requirements for electronic prescribing
- State and Territory drugs and poisons legislative requirements
- PBS legislative requirements (where applicable).

Additional information can be found [Electronic prescribing | Australian Government Department of Health and Aged Care](#)

4 Standards for local software controls

This section describes the minimum requirements for the implementation of standards for local software controls such as privacy, clinical safety, and cyber security standards. The minimum requirements are applicable to CIS and eMM systems.

ACCISS-040 **Cyber security**

The software should implement cyber security controls described in the My Health Record Cyber security conformance profile [Agency2024].

Applicable to: Aged Care CIS, eMM

Notes: The Australian Digital Health Agency’s security conformance profile provides detailed guidance on how careful software design can meet and exceed the “Essential 8” mitigation strategies [CYBER2023] that help organisations protect themselves against various cyber threats.

5 Standards for terminology code sets

This section describes the recommended requirements to implement terminology code sets standards that reflect important health concepts. The minimum requirements are applicable to CIS and eMM systems.

5.1 Clinical information systems

ACCISS-045

SNOMED-CT AU

When authoring clinical information for transfer to other healthcare organisations, the software should be able to author that clinical information using SNOMED terms where clinically and technically appropriate.

Applicable to: Aged Care CIS

Notes: Ensuring clinical information is expressed in SNOMED terms at the point of information transfer increases the chance of data interoperability. In some contexts, the use of SNOMED is not clinically advisable or technically possible.

ACCISS-050

SNOMED-CT AU

The software should implement native support for SNOMED-CT AU.

Applicable to: Aged Care CIS

Notes: Native implementation of SNOMED prevents complications caused by mapping data between reference sets.

Due to some health information not having SNOMED codes, it is important for software to not enforce a SNOMED code for all health information.

5.2 Electronic medication management systems

ACCISS-055

Australian Medicines Terminology (AMT)

When authoring clinical information for transfer to other healthcare organisations, the software should be able to author that clinical information using AMT terms where clinically and technically appropriate.

Applicable to: eMM

Notes: Ensuring clinical information is expressed in AMT terms at the point of information transfer increases the chance of data interoperability. In some contexts, the use of AMT is not clinically advisable or technically possible.

ACCISS-060

Australian Medicines Terminology (AMT)

The software should implement native support for AMT.

Applicable to: eMM

Notes: Native adoption of AMT prevents complications caused by mapping data between reference sets.

Due to some medicines not having AMT codes, it is important for software to not enforce an AMT code for every medicine.

5.3 Relevant publications

- SNOMED-CT AU March 2024 (or later)
- AMT v4 (or later)

6 Standards for future development

This section describes recommended minimum requirements for products that are outlined in the roadmap for future development.

ACCISS-065 Exchanging clinical information

The software should have the capability to author, render and consume clinical information that are exchanged between healthcare provider organisations.

Applicable to: Aged Care CIS

ACCISS-070 Exchanging Electronic National Residential Medication Charts

The software should have the capability to receive and consume electronic medication charts.

Applicable to: eMM

Notes: RACH might receive electronic medication charts during patient transfer events. The software should have the ability to receive and consume information within the patient record (where appropriate) in a clinically safe way and remove the need to retype or scan clinical content received from other healthcare providers.

Acronyms

Acronym	Description
AIR	Australian Immunisation Register
AMT	Australian Medicines Terminology
API	Application Programming Interface
CAS	Conformance Assessment Scheme
CIS	Clinical Information System
DoHAC	Department of Health and Aged Care
eMM	Electronic Medication Management
eNRMC	Electronic national residential medication chart
FHIR	Fast Health Information Resource
HI	Healthcare Identifier
HI Service	Healthcare Identifiers Services
MHR	My Health Record
NPDS	National Prescription Delivery Service
RACH	Residential Aged Care Homes
RTPM	Real Time Prescription Monitoring
SDO	Standards developing organisations
SNOMED	Systematized Nomenclature of Medicine

Glossary

Term	Meaning
Aged Care Transfer Summary	A group of three different types of clinical documents collectively called the Aged Care Transfer Summary.
Australian Immunisation Register	The Australian Immunisation Register (AIR) is a national register which records vaccines given to all people Australia.
Clinical Information System	A system that deals with the collection, storage, retrieval, communication and optimal use of health-related data, information, and knowledge. A clinical information system may provide access to information contained in an electronic health record, but it may also provide other functions such as workflow, order entry, and results reporting. A CIS may also serve the roll, or have similar features to, an electronic medicines management system.
Electronic Medicines Management System	The utilisation of electronic systems to facilitate and enhance the communication of a prescription or medicine order, aiding the choice, administration and supply of a medicine through knowledge and decision support and providing a robust audit trail for the entire medicines use process. Also see Clinical Information System.
HI Service	A national system that uses identifiers for individuals and healthcare providers.
National Prescription Delivery Service	The national e-Health service contracted by the Commonwealth or Agency that supports defined interfaces and services to facilitate the transfer of electronic prescriptions for persons and related information between participating systems.
Real Time Prescription Monitoring system	A nationally implemented system designed to monitor the prescribing and dispensing of controlled medicines with the aim of reducing their misuse in Australia.
Standard	Standards are voluntary documents that set out specifications, procedures and guidelines that aim to ensure products, services, and systems are safe, consistent, and reliable.

References

- AGENCY2022 *Discharge Summary*, v1.6, Australian Digital Health Agency, September 2022
- AGENCY2023a *Aged Care Transfer Summary*, v1.1, Australian Digital Health Agency, December 2023
- AGENCY2023b *Electronic Prescribing*, v3.3, Australian Digital Health Agency, November 2023
- AGENCY2023c *National Healthcare Interoperability Plan 2023 – 2028*, Australian Digital Health Agency, 2023
- AGENCY2024 *Security Requirements for My Health Record Connecting Systems*, v1.1, Australian Digital Health Agency, April 2024
- COMM2020 *Final Report: Care, Dignity and Respect Volume 1 Summary and Recommendations*, Royal Commission into Aged Care Quality and Safety 2020
- CYBER2023 *2023-2030 Australian Cyber Security Strategy*, Department of Home Affairs, February 2023
- DoHAC2023 *Electronic National Residential Medication Charts (eNRMC) Transitional Arrangement*, Department of Health and Aged Care, June 2023

Relevant Publications Links

National Authentication Service for Health

[National Authentication \(NASH\) | Digital Health Developer Portal](#)

HI Service Conformance Assessment Scheme

- HI Service Conformance Profile
- Technical interface specifications (Services Australia)

More information can be found on the Services Australia website [Healthcare Identifiers Service for Software developers - Health professionals - Services Australia](#)

My Health Record Conformance Assessment Scheme

- My Health Record Common Conformance Profile
- My Health Record Connecting Systems Profile
- Clinical document conformance Profile (various)
- Security Requirements for MHR Conformance Profile (draft)
- CDA Packaging specification
- Rendering specification
- My Health Record Logical Service specification
- My Health Record Technical Service specification

[Conformant clinical software products \(digitalhealth.gov.au\)](#)

Electronic Prescribing Conformance Assessment Scheme (for eMMs)

- [Electronic Prescribing - Technical Framework Documents v3.4](#) - these documents include a Solution Architecture, Conformance Assessment Scheme and Conformance Profile.
- [Electronic Prescribing - Conformance Test Specifications v3.0.3](#)

More information can be found on the Digital Health Developer Portal [Electronic Prescribing | Digital Health Developer Portal](#)

Real Time Prescription Monitoring technical specifications (for eMMs)

[National Real Time Prescription Monitoring \(RTPM\) | Australian Government Department of Health and Aged Care](#)

Australian Immunisation Register technical specifications

[Medicare Online for software developers - Health professionals - Services Australia](#)

SNOMED-CT AU

[SNOMED CT-AU and Australian Medicines Terminology March 2024 Release \(digitalhealth.gov.au\)](#)

AMT v4 (or later)

TBA