Australian Government
Australian Digital Health Agency

Electronic Prescribing Solution Architecture

25 November 2021 v3.0

Approved for external use

Document ID: DH-3542:2021

Australian Digital Health Agency ABN 84 425 496 912, Level 25, 175 Liverpool Street, Sydney, NSW 2000
Telephone 1300 901 001 or email help@digitalhealth.gov.au
www.digitalhealth.gov.au

Acknowledgements

Council of Australian Governments
The Australian Digital Health Agency is jointly funded by the Australian Government and all state and territory governments.

e-Prescriptions Project Technical Working Group
The e-Prescriptions Technical Working Group (TWG) was established by the Australian Digital Health Agency to co-develop the solution architecture and conformance framework for the e-Prescriptions Project. Over 30 members representing the medical software industry, medical practitioners, pharmacists, consumers, Department of Health and jurisdictional members made up the TWG and provided their time and expertise to the successful delivery of this solution architecture document.

Department of Health e-Prescribing Project Team
The Department of Health has overall accountability for the e-Prescriptions Project, and the Department's e-Prescribing Project Team provided valuable guidance and feedback on the draft versions of this solution architecture document.

Document information

Key information

Owner	Chief Programs Officer
Business unit	Medicines Safety Program Strategic Programs & Workplan Development
Contact for enquiries	Medicines Safety Program, Australian Digital Health Agency Phone 02 6223 0741 Email help@digitalhealth.gov.au

Table of contents

1 Introduction

1.1 Purpose

The purpose of the solution architecture is to provide an overview of the architectural components of the end-to-end national electronic prescribing system.

It reflects:

- the scope of the project as defined by the Electronic Prescribing Working Group (EPWG);
- agreed overarching principles of the project that have informed development of the architecture;
- agreed environmental influences that have informed development of the architecture; and
- assumptions that have informed development of the architecture.

It provides details of the behaviours and interactions between system components in different settings and contexts, and considers the behaviours required of the system should key components of the system be unavailable.

It is the outcome of input from stakeholders representing Commonwealth departments and agencies, jurisdictional health departments, clinical groups, consumers, and the healthcare software industry via the project Technical Working Group. It intends to leverage existing applications and infrastructure and as such is *not intended to be prescriptive*. For applications to participate in electronic prescribing, they will need to attest that they meet conformance requirements, which are documented separately.

This document will be updated from time to time based on feedback received. Changes will be managed under governance arrangements for electronic prescribing that are yet to be determined.

1.2 Related Documents

- National Requirements for Electronic Prescriptions 29 September 2017, v1.0; Australian Digital Health Agency
- MSIA Position Statement: ETP 2.0 11 October 2018; Medical Software Industry Association
- Pharmacy Guild of Australia: Position Statement – Electronic Prescriptions: October 2018
- Electronic Prescriptions Project Solution Architecture v2.0, Department of Health
- Electronic Prescribing Conformance Assessment Scheme: Australian Digital Health Agency
- National Health Pharmaceutical Benefits Regulations 2017

1.3 Intended Audience

The intended audience of this document is described below:

- Any and all organisations which develop and/or implement software for the preparation, dispensing, communication or management of electronic prescriptions.
- The Commonwealth Department of Health (Department) policy and service delivery business lines – to verify that proposed solutions meet their operational and policy needs.
- The Agency – to inform the development and implementation of appropriate conformance profiles.
- The Agency – to inform the development of the Medicines Blueprint, ensure alignment with the future architecture for national infrastructure and broader digital health systems, EMM Systems etc.
- Services Australia – to assist in the development of technical solution designs to accommodate new conformance data within their existing claiming systems.
- Federal, state and territory regulators responsible for legislation relating to the writing and dispensing of prescriptions in Australia.
- The Digital Transformation Agency (DTA) – to inform their engagement with the Department on the implementation of electronic prescribing.

This solution architecture document should be read in conjunction with the associated conformance profile document.

1.4 Background

The Australian Digital Health Agency (the Agency) has released Australia's National Digital Health Strategy - "Safe, seamless and secure: evolving health and care to meet the needs of modern Australia". The Strategy proposes seven strategic priorities, with outcomes to be achieved by 2022, and a focus on delivering safe, high-quality and effective health services for all Australians.

Under its Medicines Safety strategic priority, the Strategy defines an outcome for improved availability and access to prescriptions and medicines information. The strategy commits that *"by 2022, there will be digitally enabled paper-free options for all medication management in Australia. People will be able to request their medications online, and all prescribers and pharmacists will have access to electronic prescribing and dispensing, improving the safety of our systems."*

The Review of Pharmacy Remuneration and Regulation identified that the implementation of a fully electronic (i.e. 'paperless') prescription system in Australia should be an urgent priority. The Final Report was presented to the Minister for Health in May 2018. Recommendation 2-6 of the Final Report states that:

"The Australian Government should initiate an appropriate system for integrated electronic prescriptions and medicine records as a matter of urgency. Under this system the electronic record should become the legal prescription record. Participation in the system should be required for any prescriber of a PBS-listed medicine, any pharmacist wishing to dispense a PBS-listed medicine and any consumer who is seeking to fill a PBS prescription."

In the Australian Government Response to the Review the Government accepts-in-principle this recommendation.

In the 2018 Budget, the government provided funding to implement electronic prescribing.

The budget documents state that the measure:

"…will support a national electronic prescribing system that will contribute to Pharmaceutical Benefits Scheme (PBS) efficiency, compliance, drug safety and data collection. It will also create an electronic prescribing framework that will provide an option for prescribers and their patients to have a fully electronic PBS prescription as an alternative to paper PBS prescriptions".

In March 2020, Electronic Prescribing was identified as a critical measure to assist in the control of SARS-CoV-2 transmission. In order to support non-face-to-face modes of service delivery that do not require people to attend clinics, the implementation of Electronic Prescribing was brought forward with the first implementation going live in May 2020.

Electronic prescriptions form part of the broader digital health and medication safety framework and will enable the prescribing, dispensing and claiming (where applicable) of medicines directly from an electronic prescription. Prescribers and their Subjects of Care will have the option to use a fully electronic prescription as an alternative to a paper prescription.

Without affecting existing paper prescribing processes, the aims of the electronic prescriptions initiative are to:

- support Subject of Care safety by reducing the risk of dispensing errors;
- assist health practitioners by reducing unnecessary paperwork;
- improve data for health technology assessments, post market reviews, and broader health policy and planning;
- provide Subject of Care choice in the new digital health world; and
- become a platform to enable digital health services and initiatives.

The implementation of the ICT solution is to enable use of an electronic prescription in all prescribing circumstances, as an alternative to a paper prescription. The Department has undertaken technical scoping and gap analysis activities in consultation with the Agency and Services Australia (formerly the Department of Human Services - DHS). The architecture defined acknowledges that adoption of fully electronic prescribing will be an iterative process and allows for the coexistence of paper and electronic methods.

2 Scope - Electronic Prescribing Project

2.1 Prescriber Types

All eligible human medicine healthcare providers who are authorised as prescribers under commonwealth and jurisdictional regulations will be able to prescribe a medicine by means of an electronic prescription. This includes:

- medical practitioners;
- nurse practitioners;
- midwives;
- nursing prescriber;
- partnership registered nurses;
- podiatrists;
- optometrists; and
- dentists.

Prescribing by veterinarians and the dispensing of Prescribed Animal Remedies is out of scope.

2.2 Medication Categories

All medicines that can be prescribed, supplied and claimed by means of a paper prescription will be able to be prescribed, supplied and claimed by means of an electronic prescription.

These include:

- PBS medicines;
- Private prescriptions; and
- Repatriation PBS medicines.

2.3 Supply Settings

Electronic prescriptions will be able to be used in all supply settings where paper prescriptions can be used, including:

- Community pharmacies;
- Public and private hospitals;
- Residential aged care facilities;
- In-home nursing services;
- Mental health services;
- Aboriginal and Torres Strait Islander health services; and
- Day treatment and outpatient facilities.

2.4 Authority Prescriptions

Electronic prescribing does not change the intent or method of applying for an Authority for a PBS Prescription.

Prescriptions that require WRITTEN authorisation for PBS subsidy are within scope for electronic prescribing. Processes to submit a written authority prescription in an electronic format are currently not fully supported by Services Australia, with possible operational changes required.

Paper prescriptions may continue to be required in the instance where State or Territory Regulations require additional handwritten wording

Any prescription that requires only the authorisation number and no additional hand-written wording may be generated as an electronic prescription, with one item per prescription.

Requirements for retention of authorities by prescribers and pharmacies remain unchanged, but it is noted that this retention will be of an electronic record rather than a paper form.

2.5 Success Statement and Key Principles

The Electronic Prescribing Working Group met via teleconference on 13 December 2018. The following success statement and principles were presented by the Department at that meeting.

2.5.1 Success Statement

By October 2019 the electronic prescribing project will allow an electronic prescription to progress from prescribe through to dispense and claim in an electronic format. The scope includes implementation of legislative changes (both national and state & territories), facilitation and management of solution architecture, development of conformance frameworks, changes to the claims system and changes to enabling systems software.

2.5.2 Principles

1. **Security of patient information**

   Electronic Prescribing must maintain the safety and privacy of current and historical patient and prescription data.

2. **Integrity of prescription data**

   Electronic Prescribing must maintain the integrity of prescription data to ensure patient safety.

3. **Continues to support patient choice of prescriber**

   Electronic Prescribing will continue to support a patient's right to choose their approved prescriber.

4. **Continues to support patient choice of pharmacy**

   Electronic Prescribing will continue to support a patient's right to choose the pharmacy to supply their medicines.

5. **Electronic and paper prescriptions will co-exist as the legal form of the prescription**

   Electronic prescriptions and paper prescriptions will co-exist. Electronic Prescribing will not be mandatory, and patients and prescribers will be able to choose an electronic prescription.

6. **National Electronic Prescribing framework**

   Paper and electronic prescriptions will continue to meet the relevant Commonwealth and State and Territory legislation.

7. **Supports existing PBS policies**

   Electronic and paper prescriptions will be valid in existing PBS supply settings. Electronic Prescribing is not intended to change the broader PBS policy environment.

8. **Leveraging existing assets and capabilities**

   Electronic Prescribing will support Australia's National Digital Health Strategy principle of leveraging existing assets and capabilities to reuse and build on existing infrastructure. This will reduce the impacts on the processes for clinicians.

3 Concepts and Roles for the Proposed System

3.1 User Roles

The following table provides a description of the solution overview roles:

Role	Description
Active Script List Registry operator	The operator of an Active Script List Registry - the system and services that allow: • a Subject of Care to register for an Active Script List; • Prescriber and dispensing systems to add prescriptions/dispense records to a Subject of Care's Active Script List; and • mobile application vendors to provide mobile applications to allow Subjects of Care to view and manage access to their Active Script Lists.
Department of Health (Department)	The Department has overall accountability for the Electronic-Prescribing Project.
Department of Veterans' Affairs (DVA)	The DVA manages the RPBS and receives RPBS claim data from Services Australia.
Dispenser	A clinician who is permitted to dispense medicines under state regulations. These include dispensers (e.g. pharmacists) that work in the community, hospitals, and contracted pharmacies. Dispensers are an approved supplier under the National Health Act 1953.
Prescriber	Clinicians who are permitted under Commonwealth and state regulations to prescribe a medicine. These may include but are not limited to, general practitioners, specialists, dentists and allied health professionals based in community, residential care and hospital settings. Also see Section 2.1 Prescriber Types.
Prescription Delivery Service operator	The operator of a prescription delivery service (the mechanism through which an electronic prescription is communicated from a prescribing system to a dispensing system).
Private hospital	A privately managed hospital facility.
Public hospital	A hospital facility managed by State or Territory government.

Role	Description
Residential care facility	As defined in the Aged Care Act 1997, residential care is personal care or nursing care, or both, that: (a) is provided to a person in a residential facility in which the person is also provided with accommodation that includes: (i) appropriate staffing to meet the nursing and personal care needs of the person; and (ii) meals and cleaning services; and (iii) furnishings, furniture and equipment for the provision of that care and accommodation; and (b) meets any other requirements specified in the Subsidy Principles.
Services Australia	Services Australia (formerly Department of Human Services-DHS) receives PBS claims from the Approved Supplier. Services Australia receives conformance data for both prescription software and dispensing software in the claim from the Approved Supplier, and conformance register data from the Agency. Services Australia sends approved PBS claim data to the Department daily.
Subject of care	The subject of care is the person for whom the medicines described on the prescription are intended.

3.2 System Roles and Concepts

3.2.1 Overview of Components

The following table provides a description of solution overview components and systems and their roles:

Role	Description
Active Script List registry	The system and services that allows: • a subject of care to register for an Active Script List; • Prescriptions and repeat authorisations to be added to a Subject of Care's Active Script List. • Viewing of a Subject of Care's active prescriptions and tokens for electronic prescriptions which can be used to dispense an electronic prescription; and • mobile application vendor to provide mobile applications to allow Subjects of Care to view and manage access to their Active Script Lists.
API Gateway	Programming that sits in front of a set of application programming interfaces (APIs) and acts as a single point of entry for subscribing software systems.

Role	Description
Dispensing Software	Clinical Information System software that is used by authorised dispensers to facilitate the retrieval of prescriptions from a Prescription Delivery Service and the dispensing of medicines.
Mobile Application	A mobile application or web based application is used by the Subject of Care/Carer to manage their prescriptions as well as provide the capability to present the electronic prescription token (see below) to a pharmacy.
Mobile Intermediary	Software which manages communication between the delivery services (i.e. Open Prescription Delivery Services and Active Script List Registry Services) and Mobile Applications. The mobile intermediary's main purpose is to access prescription information contained in one or more Open PDSs on behalf of mobile applications and provide other functionality such as user authentication and validation. The mobile intermediary may also store electronic prescription tokens on behalf of the Subject of Care. In most cases the mobile intermediary will be the mobile application's server component.
Prescribing Software	Clinical Information System software that is used by an authorised prescriber to facilitate the creation of prescriptions, including prescribing systems used to author electronic medication charts.
Prescription Delivery Service	The mechanism through which an electronic prescription is communicated from a prescribing system to a dispensing system.

The following diagram represents, at the highest level, the various roles undertaken by systems that participate in electronic prescribing.

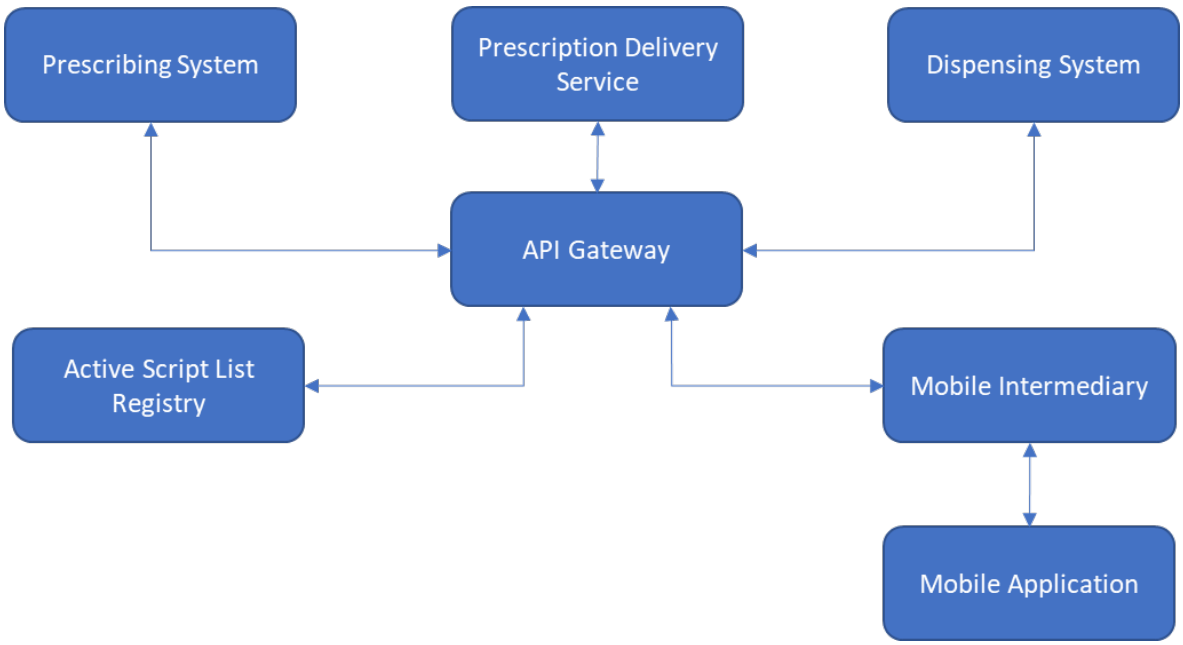


Figure 1. Electronic prescription system overview

3.2.2 Models of Prescription Delivery Services

Prescription delivery services will be Direct or Open. The following diagram provides a high-level breakdown of the two core models.

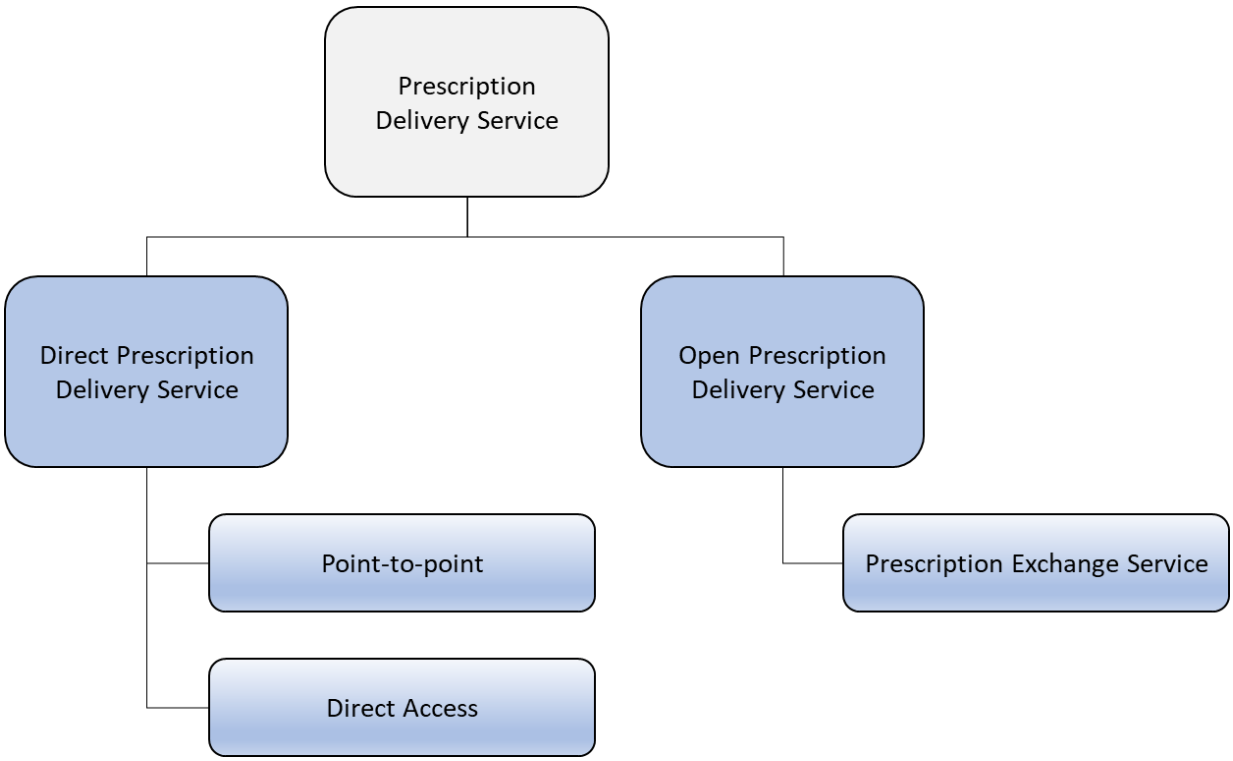


Figure 2. Prescription Delivery Service models

The following table provides a description of the Prescription Delivery Service models and systems:

Role	Description
Prescription Delivery Service (PDS)	A prescription delivery service is the mechanism through which an electronic prescription is communicated from a prescribing to a dispensing system.
Open Prescription Delivery Service	A prescription delivery service that accommodates choice of supply by the Subject of Care. An Open Prescription Delivery Service may be constructed using a variety of implementation patterns provided they all interoperate. Interoperate means where an electronic prescription sits in one Open Prescription Delivery Service, it can be accessed for use by a dispenser who is connected to a different Open Prescription Delivery Service.
Direct Prescription Delivery Service	A prescription delivery service that communicates an electronic prescription directly to a nominated dispenser. Such a mechanism is only permitted under circumstances where a choice of dispenser is made before prescription such as during the admission to a hospital facility.

Role	Description
Prescription Exchange Service (PES)	An implementation pattern of an Open Prescription Delivery Service that provides a prescription store accessible to prescribers and dispensers. Electronic prescribing systems lodge electronic prescriptions into the store. Dispensers may access the electronic prescriptions in the store and lodge dispense information.

3.3 The “Location” of an Electronic Prescription

In a community context, the electronic prescription issued from the prescribing system (e.g. GP System) is created in an Open Prescription Delivery Service (Open PDS) along with a prescription token which is provided to the Subject of Care. The electronic prescription remains in the Open PDS where it can be accessed by an authorised dispenser through use of the prescription token.

When an electronic prescription is accessed from an Open PDS by a Dispensing system using the prescription token it is no longer available to be accessed by other Dispensing systems as this would permit multiple dispensing from the same prescription.

If the Dispense is abandoned (does not complete) the electronic prescription in the Open PDS becomes available again for retrieval by other systems.

3.4 Data Classification

Electronic prescription data are considered “Unclassified” by government departments and agencies, with a Dissemination Limiting Marker of “Sensitive: Personal”.

4 Architecture Context

4.1 Business Requirements

The Business Requirements for the solution architecture are outlined in the *Requirements: Electronic Prescriptions Project* document prepared by The Department. These contain requirements from the Department's *IT Gap Analysis*, *Objectives and Outcomes* and requirements from National Requirements for Electronic Prescriptions (www.digitalhealth.gov.au/implementation-resources/ehealth-foundations/electronic-prescribing/DH-2625-2017)

4.2 Overarching Project Principles

4.2.1 Safe

The system shall ensure that medication information is captured, transmitted and rendered as the prescriber intended and, in a manner, legible and understandable to the dispenser which is equal to, or better than that afforded in current practice.

4.2.2 Secure

The solution shall ensure that the potential for fraudulent activity is minimised, at least to the extent afforded in current practice.

4.2.3 Private

The system shall ensure that the medication information is accessible only to those who have a need to know and for the benefit of the Subject of Care in a manner which is equal to, or better than, that afforded in current practice.

4.2.4 Acceptable and Sustainable

The system shall ensure that the processes for prescribers, dispensers and Subjects of Care are no more onerous than those afforded in current practice.

4.2.5 Accessible

The system shall ensure that medicines may be made available to Subjects of Care without additional delays, irrespective of the mode of prescription (paper or electronic), and irrespective of the digital literacy or abilities of users.

4.2.6 Flexible

The system shall accommodate a variety of implementations and solution specific architectures. All existing modes of prescription will persist, in concert with one or more electronic methods.

4.2.7 Supports Innovation

The system shall afford industry the scope to innovate the architectures, methods and technologies by which electronic prescriptions are delivered and by which systems interoperate, to ensure electronic prescriptions support prescribers, dispensers and Subjects of Care (subject to adherence with the aforementioned design objectives).

4.3 Agreed Environmental Influences

4.3.1 Legislation and Regulation Compliance

Compliance with Commonwealth and State legislation and regulation

Rationale:
All electronic prescribing participants are required to comply with the Privacy Act 1988, National Health Act 1953, PBS regulations and individual state and territory drugs and poisons Acts.

Implications:

- Requirement to operate data collection and storage mechanisms in a manner consistent with privacy legislation as defined in the *Privacy Act 1988* and/or state or territory privacy legislation;
- Requirement to operate prescriptions in a manner consistent with Health legislation as defined in the *National Health Act 1953*;
- Requirement to manage data and information in a manner compliant with record keeping legislation as defined in the *Archives Act 1983*; and
- Requirement to operate in a manner consistent with the Healthcare Identifiers act as defined in the *Healthcare Identifiers Act 2010.*
- Requirement to retain data and make it available for regulatory oversight as defined in state and territory regulations.
- The electronic prescription is the source of truth and legal instrument for dispensing services.
- Records created in relation to dispensing activity will be associated with the original electronic prescription ~~and made available to subsequent dispensers~~.
- The authority to dispense is obtained through reference to the electronic prescription (original and repeat) ~~and any associated dispense records~~.
- Any token supporting retrieval of the electronic prescription is not an authority/legal instrument for dispensing.

4.3.2 National Digital Health Strategy

The architecture defined will align with and promote the National Digital Health Strategy

Rationale:
The National Digital Health Strategy has been developed through detailed consultation and co-production with patients, consumers and carers, and the healthcare professionals, industry, organisations and innovators who serve them. It has been approved by the Council of Australian Governments (COAG) Health Council.

Implications:
It is critical that with the introduction of electronic prescriptions, consumers are provided with choice, control and transparency.

4.3.3 Mutually Exclusive Prescription Types

For any prescription, there will be either a single paper prescription or a single electronic prescription, never both

Rationale:
Electronic prescribing will introduce an alternative, fully electronic form of the legal instrument issued by prescribers that authorises dispensers to provide medicines to Subjects of Care.

For dispensers to be able to dispense prescribed medicines safely and according to relevant legislation and guidelines, it is imperative that there is only one legal instrument that can be acted on to dispense the medicine, and that the “source of truth” of the current state of the prescription, such as repeat authorisations, is clear.

Implications:

- If a prescription is initially issued as a paper prescription, it will remain a paper prescription and follow current workflows for the life of that prescription. A paper prescription cannot be converted to an electronic prescription.
    - Paper to Electronic: It is assumed that regulation will require obligations be placed on healthcare organisations which create electronic prescriptions. There can be no guarantee that these obligations were met when the paper prescription was created. Electronic prescriptions carry data elements (such as HPI-O and Conformance Identifiers) in addition to those of a paper prescription. Furthermore, these required elements cannot be "reconstituted" from an Electronic Transfer of Prescription (ETP) message as the ETP message has no legal standing.
    - Electronic to Paper: A key feature of a paper prescription is that it conveys legal authority through the presence of the prescriber's signature on the paper. There is no way to "convert" the authority vested in an electronic prescription to a paper prescription (i.e. recreate the prescriber's signature).

- Where it is an electronic prescription, supply will be against the electronic prescription, not the paper-based Evidence of Prescription form, information rendered via a third-party application, or token carried by the Subject of Care.

4.3.4 Open Prescription Delivery Service Consent

Subject of Care consent for electronic prescriptions to be sent to an Open Prescription Delivery Service is assumed when they choose to receive an electronic prescription

Rationale:

The electronic prescribing solution architecture does not require increased disclosure of information concerning the Subject of Care to parties beyond those for paper prescriptions supported by ETP. The architecture for an electronic prescription requires the use of an Open Prescription Delivery Service to enable the Subject of Care to attend the pharmacy of their choice so consent to send the electronic prescription is essential. The architecture describes additional concepts (such as Active Script Lists) that may access prescription information but only with explicit consent. Use of these systems is not necessary for the operation of electronic prescriptions.

Implications:

- The electronic prescription, like the Electronic Transfer of Prescriptions (ETP) data, will not be exposed to a 3rd party without consent or legal authority.
- The prescriber or dispenser will not be able to search an Open Prescription Delivery Service for electronic prescriptions – the electronic prescription can only be retrieved using the token or the list of medicines contained in a Subject of Care's Active Script List.
- Consent capture at prescriber will operate per current processes.
- If the Subject of Care misplaces a token, it is effectively the same as losing a paper prescription (status quo).

4.3.5 Mobile or Web Application Consent

Any Subject of Care mobile or web application will be required to obtain Subject of Care consent for the Open Prescription Delivery Service operator to provide the decrypted electronic prescription data

Rationale:

For the electronic prescription to be accessed and information about the electronic prescription to be made available through a Subject of Care's mobile or web application, Subject of Care consent will need to be captured by the mobile or web applications and provided to the service operators.

5 Solution Architecture Assumptions

The following assumptions have informed development of the solution architecture.

Assumption	Implications
	•
Delivery Services may not be assumed to provide any functionality or capability that supports validation of the content of the prescription	• A Delivery Service will not accept a malformed or incomplete electronic prescription but may not be assumed to provide any validation of, or add value to, the content of the message. • Validation of the content of the electronic prescription will be done by the authorised prescriber with support, as required, by their prescribing software. • Validation of the content of the electronic prescription will be done by the dispenser at the time of dispensing with the aid of real time feedback from PBS online (where applicable).
Prescribing regulatory and legislative requirements for prescription controls are managed by prescribing systems & user expertise	• Prescribing restrictions, including authorisations, repeats and quantity controls, are managed through expertise of the authorised prescriber with support, as required, by their prescribing software. • Individuals who prepare electronic prescriptions are authorised to do so under relevant regulation. • Organisations who provide their staff with access to software capable of producing electronic prescriptions must do so only for identified and authorised prescribers.
Dispensing regulatory and legislative requirements for prescription controls are managed by dispensing systems & user expertise	• The Open PDS will not validate prescription content (paper or electronic prescriptions). • Individuals who dispense are authorised to do so under relevant regulation. • Dispensing restrictions, including authorisations, repeats and quantity controls, are through expertise of authorised suppliers with support, as required, by their dispensing software.

Assumption	Implications
Other than for prescriptions written on a medication chart or prescriptions sent directly to a pharmacy (i.e. dosing point), the Subject of Care must be provided with an electronic prescription notification at the time the electronic prescription is created when utilising an Open Prescription Delivery Service	• The SoC will leave the consultation with a valid electronic prescription notification or paper token. • If it is not possible to provide the SoC with an electronic prescription notification, they will be provided with a paper token. • A SoC may choose to be issued a paper token. • The token will be accompanied by supplementary information such as barcode/QR code, medicine name, medicine strength and number of repeats.
The Subject of Care must have a means of identifying medicines prescribed	• Where prescription information is not provided to the Subject of Care by the prescriber, they shall have a means of obtaining that information.
The availability of electronic prescriptions for a Subject of Care is independent of other national programs such as the My Health Record (MHR) or the Pharmaceutical Benefits Scheme.	• Not all Subjects of Care participate in the My Health Record system or qualify for Medicare Benefits. Electronic prescribing shall be accessible to all, irrespective of their participation in such programs, however electronic prescriptions have a dependency on the Subject of Cares' Individual Healthcare Identifier (IHI) number.
Paper prescriptions, such as the current practice for paper scripts, will continue to be supported in parallel, but outside, electronic prescriptions	• Prescribers may issue either a paper prescription or electronic prescription, subject to their service and SoC preference. • The introduction of electronic prescribing will in no way change the operation of paper prescriptions.
Paper medication charts, whether NRMC, NIMC, PBS HMC or another format, will continue to be supported in parallel, but outside, electronic prescriptions	• Adoption of electronic medication charts is not a requirement for residential or inpatient facilities. • The introduction of electronic prescribing will in no way change the operation of paper medication charts.
Paper prescriptions and electronic prescriptions are mutually exclusive	• A prescriber shall not issue the same prescription in both paper and electronic form. • Paper and electronic prescriptions facilities are distinct; they cannot convert, merge or join to accomplish the same service objective over the life of the prescription.
ETP shall continue to operate independently of electronic prescriptions	• Paper prescriptions shall continue to be supported by ETP as required. • The same PES infrastructure may be used to convey both ETP and electronic prescriptions. • Prescription Exchange Services which convey electronic prescriptions are subject to the electronic prescription regulations and conformance requirements.

Assumption	Implications
ETP specific Mobile Applications shall continue to operate independently of electronic prescriptions	• Consumer management of paper prescriptions shall continue to be supported by mobile applications. • The same mobile application infrastructure may be used to support Subject of Care management of electronic prescriptions. • Mobile application infrastructure which is used to support Subject of Care management of electronic prescriptions are subject to electronic prescription regulation and conformance requirements.
Dispenser discretion to supply shall be permitted in scenarios where access to the electronic prescription is temporarily unavailable	• In circumstances where the dispenser is unable to access the electronic prescription (due to technical difficulty), they may – if allowed by state legislation - exercise their discretion and provide emergency supply, or they may request verbal authorisation to dispense from the prescriber (in line with current practice). • In such circumstances, the dispenser shall NOT rely on medication information which may accompany the electronic prescription token. Confirmation of medication information may be from the record within the Open PDS, or directly from the prescriber.
The requirement for authorised agents to collect prescriptions on behalf of SoCs will remain and be available for electronic prescriptions	• Dispensers may exercise their judgement under applicable regulation as to whether to supply to a person presenting a token for dispense considering they may be, or are, an agent of the Subject of Care. • As per applicable regulation, dispensers may request and record evidence of identity as appropriate.
A prescriber can exercise choice to offer a Subject of Care an electronic prescription or paper prescription	• A prescriber may exercise their judgment to determine whether or not to issue an electronic or paper prescription. • A prescriber may choose not to offer electronic prescriptions.
Subjects of Care are not required to provide additional consent to electronic prescriptions	• Open PDS Operators are prohibited from accessing electronic prescription information unless compelled to do so under court order or as required under legislation, or for approved purposes as defined in the conformance profile. • The electronic prescriptions solution architecture will not expose a Subject of Care's personal information to any parties in addition to those involved in paper prescriptions. • The electronic prescription solution architecture does not expose more personal information to participants than is currently exposed to those participants by paper prescriptions.

Assumption	Implications
Subjects of Care will be required to consent to the provision of their personal information to parties supporting their electronic access to electronic prescription information	• Where Subjects of Care elect to access their electronic prescription information using electronic services, the providers of such services will require access to their information. • Open PDS Operators and ASLR Operators may allow such service providers to access electronic prescription information. • Mobile Application Intermediary providers may request and provide electronic prescription information to a consumer where they have received informed consent from the Subject of Care or they have reasonable grounds to believe that the consumer is an authorised carer of the Subject of Care. • Mobile Application Service providers are subject to all applicable electronic prescribing regulations and conformance requirements.
Retention of legal instrument (electronic prescription) for audit purposes will remain the obligation of the dispenser	• Dispensers are currently obliged to retain the paper authority for dispensing for a period (two years) to support PBS audit and investigation. Where the requirement for retention under state-based regulation exceeds the requirement under PBS, that retention period should be observed. • As and where required by regulation, all participating software must be able to maintain an archive/audit log to support this requirement for dispensing against electronic prescriptions.
Retention requirements of an electronic prescription and subsequent dispense records will be determined by legislation	• An electronic prescription, and its associated dispensing records, may be deleted from the Open Prescription Delivery Service at some time following expiry of the electronic prescription.
The privacy notice that is currently provided on the reverse side of a paper prescription will also be provided to a consumer who receives an electronic prescription	• Information provided to a consumer accompanying an electronic prescription must allow the consumer to read the text that currently forms the Privacy Notice printed on the reverse side of paper prescription stationery. • Consent processes within hospital and residential aged care facilities will ensure that the Subject of Care is provided with the relevant privacy notice on admission to the facility.
To ensure clinical safety, not all electronic prescriptions will be able to be loaded to an Active Script List	• Electronic prescriptions that must be filled by a pharmacy agreed with the SoC at the time of prescribing (for example, controlled drug of dependence dosing point) will not be loaded to an Active Script List to avoid the medicine being supplied by an incorrect pharmacy.

6 Current State Architecture

6.1 Current State Overview

The following diagram outlines the current state architecture for paper prescription based prescribing and dispensing at a high-level. This excludes medication charts as there is not a common architecture for this model at this time.

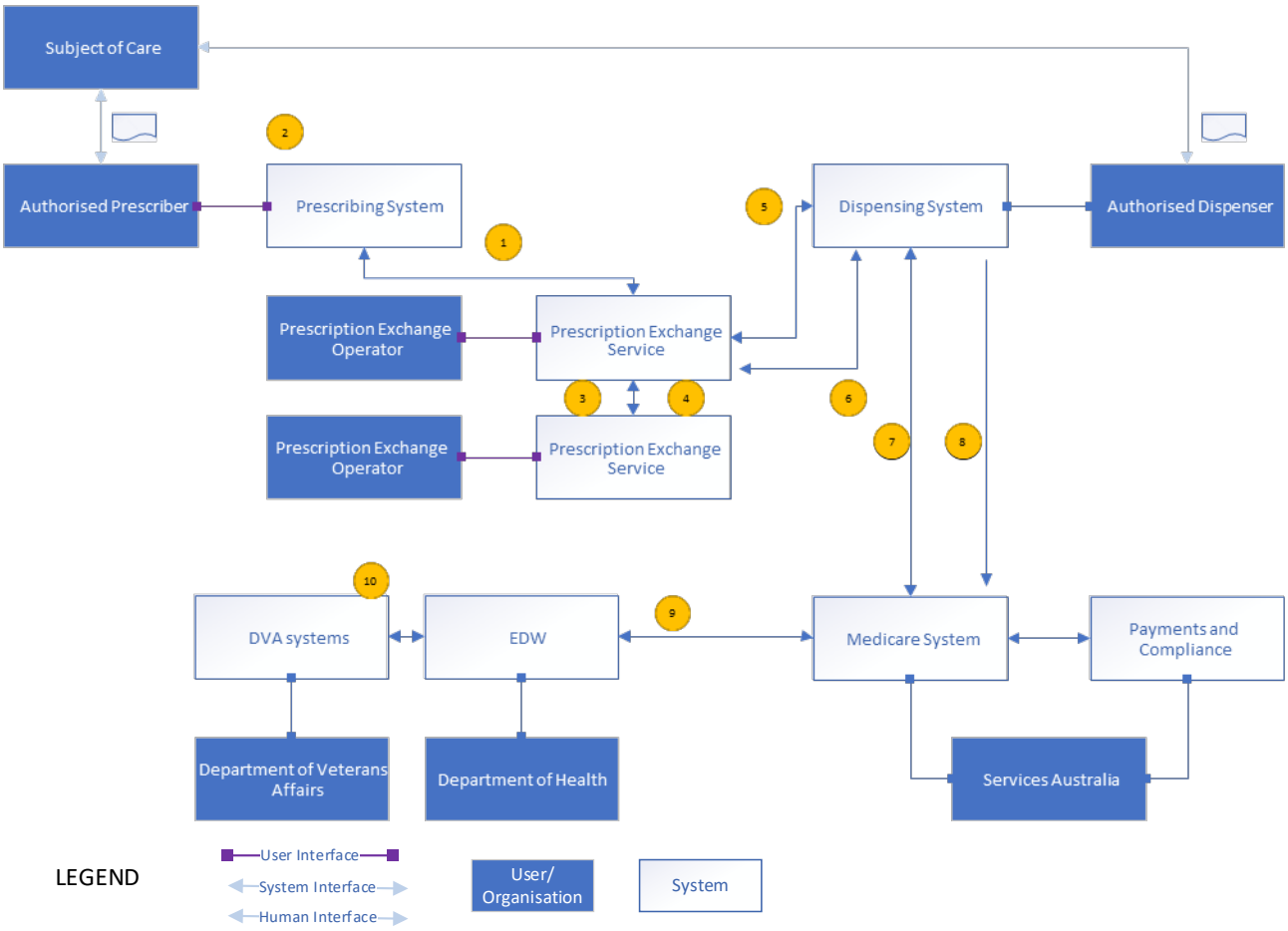


Figure 3. Logical diagram of current state architecture at a high-level

6.2 Current State Process

#	Interaction	Detail
1	Create a new paper prescription – ETP upload if supported	Authentication: Prescriber system PES credential. Send: ETP data within structured message to PES, with the clinical content encrypted the prescriber agent encryption key and the transaction encrypted using PES public key. Receive: Notification.

#	Interaction	Detail
2	Print prescription for the Subject of Care	Printed paper prescription that is the legal instrument authorising dispensers to provide medicines to Subjects of Care.
3	Inter-PES transfer – on retrieval of electronic copy of paper prescription by a Dispensing System if the PES does not have the electronic copy of paper prescription stored	Authentication: PES credential. Send: Message requesting the electronic copy of paper prescription with Delivery Service Prescription Identifier (DSPID). Receive: electronic copy of paper prescription data within structured message, with: • clinical content decrypted using the host PES agent key; • transaction transformed to the requesting PES format; • clinical content encrypted using the requesting PES agent key; and • the transaction encrypted using requesting PES public key.
4	Inter-PES transfer – on upload of dispense record if the PES does not have the electronic copy of paper prescription stored	Authentication: PES credential. Send: Dispense record data within structured message with: • clinical content decrypted using the requesting PES agent key; • transaction transformed to the host PES format; • clinical content encrypted using the host PES agent key; and • the transaction encrypted using host PES public key. Receive: Notification.
5	Electronic copy of paper prescription download by dispensing software	Authentication: dispenser system PES credential. Send: Request with DSPID. Receive: Electronic copy of paper prescription data within structured message.
6	Dispense record upload to PES	Authentication: dispenser system PES credential. Send: Dispense record data within structured message, with the clinical content encrypted using dispenser agent encryption key and the transaction encrypted using PES public key. Receive: Notification.

#	Interaction	Detail
7	PBS Claim authorisation on dispense	Authentication: dispenser's Medicate site certificate. Send: Message requesting authorisation that PBS claim is payable (as per Services Australia specifications). Receive: Notification of whether claim is payable.
8	PBS Claim lodgement to Services Australia	Authentication: dispenser's Medicare site certificate. Send: PBS claim data (as per Services Australia specifications). Receive: Notification.
9	Send PBS and RPBS claim data to the Department	Send: PBS and RPBS claims data. Receive: Notification.
10	Send RPBS claims data to DVA	Send: RPBS claim data (as per the Department/DVA specifications). Receive: Notification.

7 Future State Architecture

7.1 Future State Overview

The following diagram shows the future state architecture for electronic prescribing (including prescribing systems used for authoring electronic medication charts) at a high-level. The introduction of electronic prescriptions does not replace the current state but provides an additional option for a Subject of Care to receive an electronic rather than paper prescription.

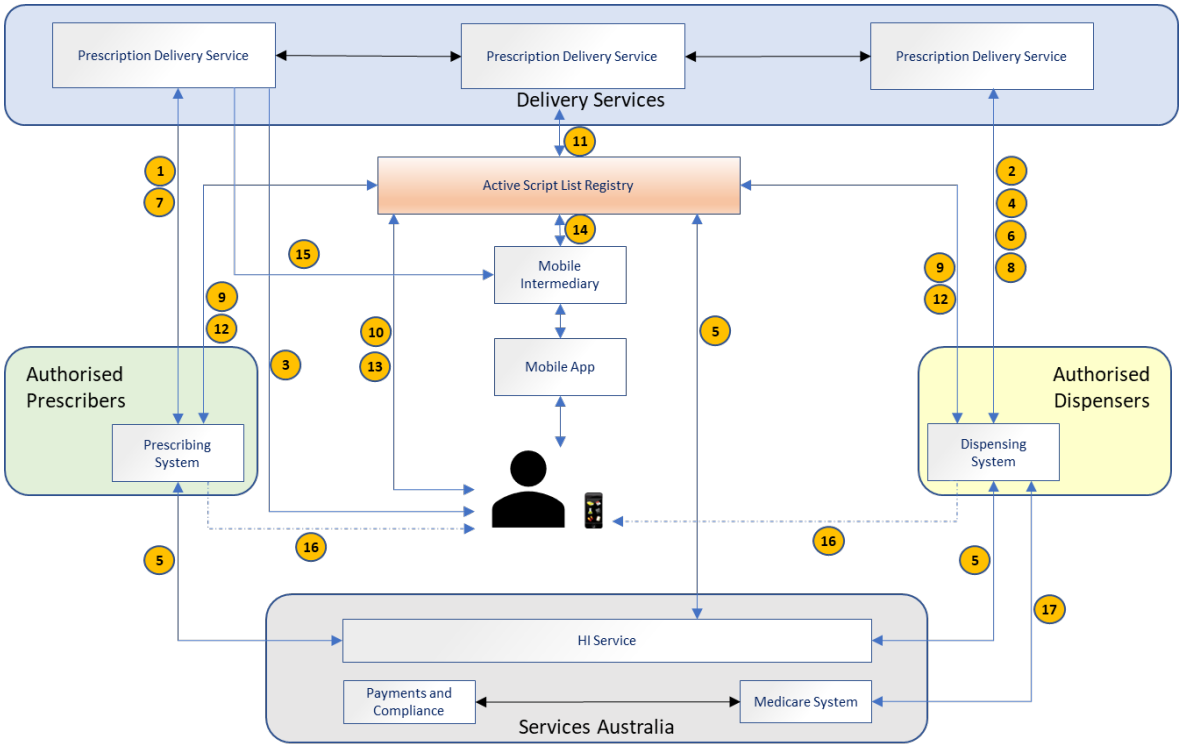


Figure 4. Logical diagram of future state architecture at a high-level

7.2 Future State Process

Process	#	Description
Uncomplicated prescribe and dispense	1	Prescription created in the PDS and confirmation of prescription creation sent to the prescribing system.
	2	Token information sent to the PDS to find prescription; prescription information sent to the dispensing system.
	3	Evidence of prescription sent to the SoC
	4	Dispense record created in the PDS and confirmation of dispense record creation sent to the dispensing system.
	5	Request or validate the SoC's IHI
Cancellation of dispense	6	Dispense cancelled in the PDS and confirmation of dispense cancellation
Cancellation or disabling of prescription	7	Prescribing system cancels prescription in the PDS and receives confirmation
	8	Dispensing system disables prescription in the PDS and receives confirmation
Registering an SoC for an ASL	9	Prescriber or dispensers registers a SoC for an ASL
	10	Consent to create ASL requested and provided
Prescription added to a SoC's ASL	11	A prescription is added to the consumer's ASL
Prescriber or dispenser accesses an ASL	12	Prescriber or dispenser requests access to an ASL and the contents of an ASL
	13	SoC/Carer consent for organisational access to ASL requested and granted
Mobile app access	14	SoC/Carer registers an app for access to their ASL and uses the app to access and manage their prescriptions
	15	Details of prescriptions accessed through mobile app
Possible transfer of evidence of prescription directly from prescriber to SoC/Carer	16	The architecture allows for the possible transfer of evidence of prescription directly from prescriber to SoC/Carer. This may be electronic (e.g. email or an app) or on paper.
Payment	17	Payment information transferred to Services Australia

7.2.1 Prescribing

If the prescribing system holds the SoC's IHI number, it must attempt to verify that the IHI number has a record status of "verified" and a number status of "active" with the HI Service prior to creating an electronic prescription. If the HI Service does not return an IHI number (existing or new) with a record status of "verified" and a number status of "active", or the IHI cannot be verified at this time (e.g the HI Service is unreachable), an electronic prescription cannot be issued to the SoC.

If the prescribing system does not hold the SoC's IHI number, it must obtain it from the HI Service prior to creating an electronic prescription. If the IHI number cannot be obtained, the SoC cannot be issued with an electronic prescription.

If the SoC does not want an electronic prescription, they can, at the time of prescription, elect to be issued with a paper prescription.

If a SoC/Carer has opted for an electronic prescription and their IHI has been verified then when a prescriber launches the prescription function within their prescribing system a call is made to an ASLR to determine whether the SoC has an ASL or not. If the SoC has an ASL, a visual indicator will be established in the prescribing system and all electronic prescriptions created in the prescribing system will be sent to it, unless the prescriber and SoC agree otherwise. If the prescriber has been granted with "view access" to the SoC's ASL, by the SoC, the prescriber will be able to view the ASL.

Pre-conditions for adding electronic prescriptions to the ASL:

- SoC must have an IHI number with a record status of "verified" and a number status of "active".
- SoC must have registered for an ASL.
- The prescription is eligible to be included in an ASL (not all prescribing arrangements may not be eligible for ASL. i.e. medications required to be dispensed at a dosing point)

Pre-conditions for prescriber's ability to view ASL:

- In addition to the above two pre-conditions, the SoC must have granted view access for the ASL to the prescriber.

All electronic prescriptions are created by a prescribing system in a PDS where they can be accessed through use of a prescription token. If the electronic prescription created in the Open PDS contains an IHI number within the prescription metadata that matches a registered ASL, along with an ASL consent indicator that is positive, the Open PDS will send a copy of the prescription token to the ASLR.

If the SoC is to receive an electronic prescription, the prescribing system may send an electronic prescription notification to the SoC/Carer. The choice of channel for notifications is up to the SoC/Carer. The electronic address used must be registered against the SoC's record in the prescribing system and will be sent an electronic notification containing a URI.

The URI links to a web resource holding the electronic prescription token, which includes:

- the barcode/QR code;
- Delivery Service Prescription Identifier (DSPID);
- medicine name;
- medicine strength;
- number of repeats; and
- privacy notice.

The SoC may elect to be issued with a paper token for the electronic prescription. The paper token will contain the same information as the electronic token.

The prescribing organisation may elect for the Open PDS to manage electronic notifications to the SoC on the organisation's behalf. To support this, the electronic address for the SoC must be included in the electronic prescription metadata – with the consent of the SoC.

7.2.2 Dispensing

If the dispensing system holds the SoC's IHI number, it must attempt to verify that the IHI number has a record status of "verified" and a number status of "active" with the HI Service. If the HI Service returns an IHI number (existing or new) with a record status other than "verified" and a number status other than "active", dispensing from a presented token can continue however prescription tokens cannot be retrieved for the SoC's Active Script List.

If the IHI number cannot be verified due to system outage (for example, the HI Service is unreachable), prescription tokens *may* be retrieved from the SoC's Active Script List.

If the dispensing system does not hold the SoC's IHI number, it must attempt to obtain it from the HI Service. If the IHI number cannot be obtained, the dispensing system may still dispense from a token but will be unable to retrieve prescription tokens for the SoC from an Active Script List.

If the dispensing system is connected to an ASLR then when a dispenser opens the SoC's record in their dispensing system, a call is made to a connected ASLR. If the Subject of Care has registered for an ASL, and has granted access to the dispenser, the dispenser can view a summary list of the SoC's active electronic prescriptions. The dispenser may select a medicine from the ASL to retrieve the complete prescription from the Open PDS using the DSPID.

On retrieval of an electronic prescription from an Open PDS by a dispensing system if the Open PDS does not have the electronic prescription stored it will request the prescription from the correct PDS through an inter PDS transfer.

All dispense records for dispensed electronic prescriptions and any repeat authorisations for electronic prescriptions, are sent to the PDS.

On upload of dispense record from a dispensing system to an Open PDS if the Open PDS does not have the electronic prescription stored it will upload the dispense record to the correct PDS through an inter PDS transfer.

If the dispense record sent to an Open PDS is linked to an ASL prescription, the Open PDS will send the dispense record to the ASLR. Completed prescriptions are removed from the ASL, if a repeat authorisation was issued, and consent to add to the ASL not withdrawn, the token for the repeat authorisation is made available in the ASL.

7.2.3 Mobile Applications

Using a mobile or web application, the SoC may be able to do any or all of the following:

- view the electronic prescription associated with an electronic prescription token.
- view their Active Script List.
- revoke or re-instate access to their Active Script List by prescribers and dispensers.
- delegate, revoke and reinstate access to agents or carers.
- view an audit trail of who has accessed their Active Script List.
- forward prescription tokens to online or bricks and mortar pharmacies.
- save or forward an electronic token for an ASL prescription item.
- hide/unhide prescription items within an ASL.

Mobile application interactions are performed through a Mobile Intermediary. The mobile intermediary will interact with the Open PDS and the ASLR to support the functions of the mobile application.

The Mobile intermediary interacts with the ASLR on behalf of the mobile application to allow the SOC to:

- view and manage the prescription tokens in their Active Script List.

- manage prescriber and dispenser access to their Active Script List
- manage agent access to their Active Script List

The Mobile intermediary can use prescription tokens it has access to, either from an ASL or other means, to access the Open PDS to obtain details of the prescribed medication for display in the mobile application.

7.3 Active Script List

Subjects of Care may choose to register for an Active Script List. Active Script Lists support the ability to access electronic prescriptions through an individual's assertion of identity rather than through presentation of a token. This overcomes the issue of lost tokens and would assist medication management and adherence for Subjects of Care who have complex medical needs. It is only relevant in the context of an Open Prescription Delivery Service and is not applicable to electronic prescriptions under the direct model of prescription delivery.

Active Script Lists contain the summary information associated with electronic prescriptions where:

- The Subject of Care has registered for an Active Script List;
- The electronic prescriptions are appropriate to be loaded to an Active Script List; and
- The electronic prescriptions are "active" – i.e. not expired, exhausted or cancelled.

Active Script Lists do not contain electronic prescriptions. The summary data for electronic prescriptions in an Active Script List includes the DSPID for each electronic prescription to enable the retrieval of electronic prescriptions from the Open Prescription Delivery Service.

When a Subject of Care registers for an Active Script List, this becomes their default channel for electronic prescriptions. A Subject of Care with an Active Script List may, at the time of prescribing, request that the electronic prescription not be added to their Active Script List, or elect to be issued with a paper prescription.

An ASL may be updated with information from an electronic transfer of prescription (ETP) under the paper prescription model, where:

- The Subject of Care has registered for an Active Script List;
- The electronic prescriptions are appropriate to be loaded to an Active Script List; and
- The electronic prescriptions are "active" – i.e. not expired, exhausted or cancelled.

When a SoC receives a paper script from a prescribing system connected to a Prescription Exchange Service that is also a Prescription Delivery Service, and the subsequent electronic transfer of prescription message contains sufficient consent information, the receiving Prescription Delivery Service may update the Active Script List to contain details of the prescription. This prescription information cannot contain the barcode or sufficient information to retrieve the prescription from the Prescription Exchange Service. Dispensing systems may see the entry but will require the paper prescription in order to dispense. On dispense, if the dispensing system provides a dispense record to the Prescription Exchange Service the SoC's ASL will be updated and show any repeat authorisations.

Electronic prescriptions that must be dispensed from a specific pharmacy may not be included in a SoC's Active Script List to ensure only the agreed and authorised pharmacy may dispense that item. This may apply to:

- Electronic prescriptions authored by Prescribers where the dispensing location has been agreed (such as in the case of "dosing points" or confirmation of verbal authority); or

- repeat authorisations where Dispensers are required to withhold or delay the provision of a token to the ASL (such as in the case of staged supply where subsequent repeats must not be available while there is remaining supply)

Using a mobile application, or the evidence of prescription provided at time of prescribing, a Subject of Care with an Active Script List can choose to display a token version of an electronic prescription that has been added to their Active Script List. This enables the Subject of Care to present a specific electronic prescription to a dispenser without disclosing their entire Active Script List.

7.3.1 Active Script List Registry

Active Script Lists are enabled through an Active Script List Registry – the system and services that enables:

- a Subject of Care to register for an Active Script List;
- prescribing and dispensing systems to add prescriptions/dispense notifications to a Subject of Care's Active Script List; and
- mobile application intermediaries to provide mobile applications to allow Subjects of Care to view and manage access to their Active Script List.

An Active Script List Registry provides the following services:

1. Registration – the Active Script List Registry stores the information submitted to it by prescribers and dispensers via the assisted registration process, or by the Subject of Care via a mobile or web application.
2. Check registration – when a prescriber or dispenser opens a Subject of Care record within their Clinical Information System and commences a prescription or dispense transaction, a call is made to the Active Script List Registry using the Subject of Care's IHI number to see if the Subject of Care has already registered for an Active Script List.
3. Check provider access – when a prescriber or a dispenser requests *view access* to a Subject of Care's Active Script List, a call is made to the Active Script List Registry using the prescriber or dispenser organisation's HPIO and the system's conformance ID to see if the prescriber or dispenser has been granted access to the Subject of Care's Active Script List.
4. Verify agent/carer authority – when an agent or carer for the Subject of Care requests the dispensing of medicines from the Subject of Care's Active Script List on behalf of the Subject of Care, a dispenser with view access will be able to see a list of all registered carers/agents. The dispenser will verify the identity of the carer/agent and confirm that they are listed in the Subject of Care's Active Script List before dispensing medicines to that agent/carer.
5. Add prescription –supports the addition of electronic prescriptions by an Open Prescription Delivery Service.
6. Add dispense notification - supports the forwarding of electronic dispense notifications by an Open Prescription Delivery Service to mark the prescription or repeat as being dispensed.
7. Add electronic transfer of prescription record – When a PDS is also performing the role of a Prescription Exchange Service, supports the upload of electronic transfer of prescription records from that PDS.
8. Add dispense notification - When a PDS is also performing the role of a Prescription Exchange Service, supports the forwarding of electronic transfer of prescription dispense records from that PDS.
9. Display active prescription list – supports the viewing of Active Script Lists by the SoC's approved prescribers and/or dispensers, the SoC and their nominated carers.

10. Manage access – supports the ability for Subjects of Care to view who has access to their Active Script List, remove access, re-instate access or delegate access via a mobile or web application.
11. Delegate access – supports the ability for Subjects of Care to add, revoke and reinstate access to agents or carers via a mobile or web application.
12. View audit trail - supports the ability for Subjects of Care to view via a mobile or web application who has accessed their Active Script List.
13. Forward prescription link – supports the forwarding of links to electronic prescriptions to online or bricks and mortar pharmacies via a mobile or web application.
14. Pre-populate ASL - supports the ability for a Subject of Care to transfer their active prescriptions that are available in the Open Prescription Delivery Services to their Active Script List via a mobile or web application on registration.
15. Access token – supports the ability for the Subject of Care to access the token for a prescription item listed in their ASL.
16. Hide/unhide prescription item – supports the ability for the Subject of Care or carer to control the visibility of individual electronic prescription items on their Active Script List, to all entities with view access to their ASL, except for the Subject of Care or their Carer(s).
17. Notifications – supports the ability for the Subject of Care to receive electronic notifications for:
    - ASL registrations;
    - Access requests (from prescribers, dispensers, or carers);
    - Electronic prescriptions held on their ASL are dispensed;

Only systems that are conformant and have been registered with an Active Script List Registry can interact with the Active Script List Registry.

7.3.2 Active Script List Registration

7.3.2.1 Assisted Registration

A Subject of Care can choose to register for an Active Script List at a prescribing system location or a dispensing system location.

When the prescriber or dispenser clicks the Active Script List registration icon within the SoC's record in their Clinical Information System, the Open Prescription Delivery Service agent installed on prescribing or dispensing systems will launch a registration screen, pre-populated with the Subject of Care's locally stored personal information.

If the prescriber or dispenser system sends the Subject of Care's IHI number to the Active Script List Registry, it must first verify with the HI Service that the IHI record status is "verified" and the IHI number status is "active".

Subjects of Care may add the details of carers/agents via the assisted registration process to allow carers/agents to collect prescribed medicines on their behalf.

Active Script List registration will require the registering system to provide basic demographics of the Subject of Care alongside an electronic address for delivery of ASL notifications.

The electronic prescribing conformance profile specifies the complete information required for conformant registration of a SoC and agents/carers in an Active Script List Registry.

A check box or similar indicating the Subject of Care's consent to registration, and for carers/agents to act on their behalf (if any) to collect prescription medicines on their behalf, must be checked before the information can be submitted to the Active Script List Registry.

When the registration is submitted, the Active Script List Registry will send an electronic notification of registration to the Subject of Care. The Subject of Care can confirm or reject the registration. Upon confirmation, the Subject of Care's Active Script List becomes "active".

If the Subject of Care elects to pre-populate their ASL with current scripts the ASLR will send a request to the connected Open Prescription Delivery Services to provide the current active prescriptions for the subject of care. The PDS will then provide all active prescriptions, including the tokens where appropriate, to the Active Script List Register as though they had just been prescribed so they may be populated in the SoC's ASL.

7.3.2.2 Self Registration

A Subject of Care can choose to self-register for an Active Script List through use of a conformant mobile or web application.

Self-registration for an Active Script List will require the Subject of Care to use approved identity management services to verify their demographics at time of registration. These validated demographics will be provided to the Active Script List Register which will utilise them to obtain a validated IHI for the Subject of Care.

If the Active Script List Registry is able to obtain an IHI and that IHI record status is "Verified" and the IHI number status is "Active" then the registration can continue. The mobile or web application will obtain the remaining information required to complete registration and provide it to the Active Script List Registry, including an indicator as to whether the Subject of Care elects to pre-populate their ASL with current scripts.

When the registration is submitted, the Active Script List Registry will send an electronic notification of registration to the Subject of Care. The Subject of Care can confirm or reject the registration. Upon confirmation, the Subject of Care's Active Script List becomes "active".

If the Subject of Care elected to pre-populate their ASL with current scripts, the ASLR will send a request to the connected Open Prescription Delivery Services to provide the current active prescriptions for the subject of care. The PDSs will then provide all active prescriptions, including the tokens where appropriate, to the Active Script List Register so they may be populated in the SoC's ASL.

7.3.2.3 Delegated Access

The SOC can authorise two types of delegated access to their ASL. A carer and an Agent.

A Carer can register for and interact with the Subject of Care's ASL as though they themselves were the Subject of Care, interactions with the Subject of Care for notifications and actions that may be performed against the ASL by the SOC can instead be fulfilled by a registered carer. A typical scenario would be a parent registering for an Active Script List on behalf of their child which the parent can then manage.

Registration may be via assisted registration, health care professionals performing the registration must have confidence around the identity of carer's and their claim to be a carer for the Subject of Care.

Should the Subject of Care seek to assert control over their Active Script List, and be legally entitled to so, they can utilise the assisted registration process to register their own contact details against the Active Script List and remove all carers' access. The Subject of Care may choose to reinstate access to those individuals as agents if they so choose.

Organisations may also be registered as carers for Subjects of Care that they are legally responsible for, or approved by the Subject of Care or legal carer of the Subject of Care, such as Residential Aged Care Facilities or Children Protective Services. Employees of such organisations may be provided with access the Active Script List of the Subject of Care if permitted to do so under that organisation's access policies.

An Agent is a pre-registered representative of the Subject of Care who has been nominated to be able to collect dispenses on behalf of the Subject of Care. Agent's can request a dispensing organisation to access the SOC's ASL and dispense one or more prescription items from the ASL.

7.3.3 Prescribing to an Active Script List

If a Subject of Care has registered for an Active Script List and seeks a prescription, the prescribing system will show that the Subject of Care has an Active Script List. Each time the prescriber opens the prescribe medicine screen for that Subject of Care, a call is made to the Active Script List Registry with the Subject of Care's IHI number along with the organisation's HPI-O, and name of the prescribing organisation. If the Subject of Care has registered for the Active Script List, then electronic prescriptions can be added to it unless agreed otherwise by the Subject of Care and the prescriber.

A prescriber does not need to be granted access to the Subject of Care's Active Script List in order to add electronic prescriptions to it. If the Subject of Care/Carer has granted access to the prescriber, the prescriber will be able to view the Subject of Care's Active Script List.

All Active Script List prescriptions are sent to the Active Script List Registry via the Open Prescription Delivery Service. The IHI number for the SoC within in the electronic prescription metadata is used to determine whether or not the SoC has a registered Active Script List. If registered, and the prescription metadata contains an ASL consent indicator, the electronic prescription will be forwarded to the Active Script List Registry. The Active Script List Registry agent will decrypt the clinical content and store summary information within the Active Script List Registry. All information stored in the Active Script List Registry is encrypted at rest.

A printed or electronically-transmitted Evidence of Prescription can also be provided to the SoC when an Electronic Prescription is created and added to an Active Script List.

7.3.4 Dispensing from an Active Script List

When a Subject of Care/Carer/Agent seeks the supply of a medicine, the dispensing system will show whether the Subject of Care has an Active Script List. If the Subject of Care has registered for the Active Script List, and the Subject of Care has granted access to the dispenser, the option to retrieve the Subject of Care's Active Script List will be present. If the dispenser does not have access to the Subject of Care's Active Script List, then they will need to request access before they can retrieve the SoC's Active Script List.

The dispenser will follow established business processes to verify the identity of the Subject of Care and retrieve their record in the dispensing system. If a record does not exist in the dispensing system, one will be created in line with existing dispensing processes. When the Subject of Care's record is retrieved, a call is made to the Active Script List Registry with the Subject of Care's IHI number along with the HPI-O and name of the dispensing organisation.

In addition to the summary list of a Subject of Care's electronic prescriptions, the dispenser will be able to view the details of any carers/agents associated with the Subject of Care's Active Script List. This will give dispensers the ability to assure that carers/agents collecting prescription medicines on behalf of the Subject of Care are doing so with the Subject of Care's authorisation.

7.3.5 Access Control

Access to the Active Script List is controlled by the Subject of Care and their pre-registered Carer. Initially, when a prescriber or dispenser attempts to access a Subject of Care's Active Script List, a call is made to the Active Script List Registry with the Subject of Care's IHI along with the HPI-O and name of the requesting organisation. An electronic notification will be sent to the Subject of

Care or Carer advising them that the prescriber or dispenser is requesting access to their Active Script List. The Subject of Care or Carer can:

- accept the request;
- accept the request for a pre-defined limited period of time; or
- deny the request.

If the Subject of Care or Carer accepts the request, the prescriber or dispenser will be able to view their Active Script List. If the prescriber or dispenser's previous access has expired or been removed by the Subject of Care or Carer, clicking on the Active Script List icon will trigger a new electronic access request notification to the Subject of Care or Carer.

The Subject of Care or Carer can use a mobile or web application to hide/unhide individual prescription items, revoke and re-instate access to prescribers and dispensers; delegate, revoke and re-instate access to carers (SoC only) and agents; and view an audit trail of previous access to their Active Script List.

7.4 Community Context

The Community Context is defined by those circumstances where the Subject of Care exercises their choice of supply. In other words, the Subject of Care is prescribed medicines which they are free to have dispensed at a pharmacy of their choosing. This covers primary care prescribing and community pharmacy dispensing, but importantly also applies where medicines are prescribed in outpatient settings or on discharge from hospital when the Subject of Care can fill the prescription at a pharmacy of their choice.

To support this choice, information to retrieve the prescription can be in the form of a paper-based Evidence of Prescription form (including token), an electronic token carried by the Subject of Care (or their Agent), or an Active Script List retrieved using the Subject of Care's personally identifying information. These provide the dispenser with access to the prescription lodged with an Open Prescription Delivery Service where the prescription is accessible to all potential dispensers.

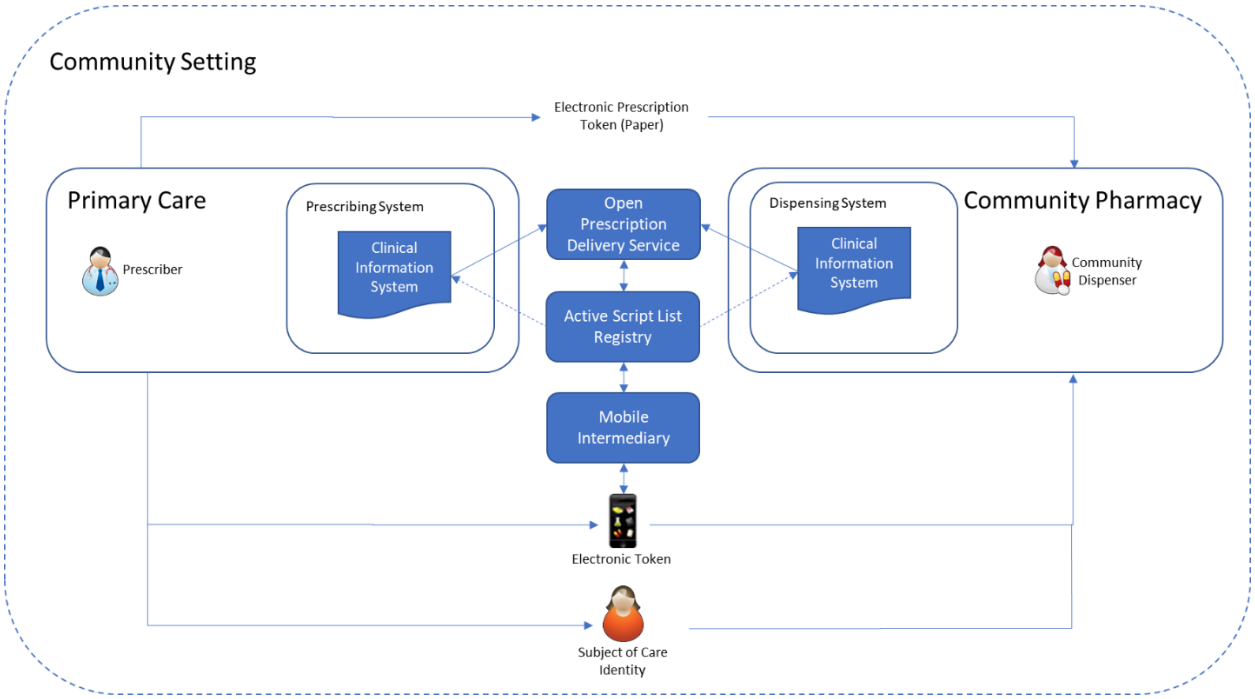


Figure 5. Electronic Prescriptions Future State - Community Context

In the Community Context, outside of some specific instances, prescribers are prohibited from "channelling" prescriptions to specific pharmacies, thereby denying Subject of Care choice.

7.4.1 Community Electronic Prescribing

7.4.1.1 Community Electronic Prescribing Pre-conditions

In order for an authorised prescriber to be able to create an electronic prescription, the following steps are required:

1. The Healthcare Organisation must have obtained and installed clinical software which is conformant with the requirements for electronic prescriptions.
2. The Healthcare Organisation must have contracted with a conformant Open Prescription Delivery Service for the delivery of Electronic Prescriptions and established a connection with its clinical software.
3. The Healthcare Organisation must have defined and implemented a security policy which governs the Access to electronic prescribing capability and information in its clinical software.
4. The Healthcare Organisation must have authorised employees as approved prescribers and provisioned them with access to the electronic prescribing capability.

7.4.1.2 Community Electronic Prescribing Process

Prescribers in a community context such as General Practice will experience few changes to the process for the recording of medicines to be prescribed in their clinical systems.

The point of departure in current process will occur at the time in the consultation when the prescription is produced.

At this point, there are a series of decisions required:

1) Should the prescription be provided as a paper prescription or an electronic prescription? Considerations include:
    a. Does the prescription carry specific legislative requirements precluding it from being generated as an electronic prescription?
    In these circumstances, a paper prescription must be provided.
    b. Does the prescriber have the capability and willingness to produce an electronic prescription?
    Prescribers have a choice as to whether to provide electronic prescriptions.
    c. Does the Subject of Care have the desire to receive an electronic prescription?
    Subjects of Care have the right to express a specific choice of form.
2) If an electronic prescription is provided, the Subject of Care may request a token be provided and the electronic prescription can also be added to their Active Script List.
    If an electronic prescription is provided as a token, delivery options include:
    a. Plain paper containing the token (barcode/QR code) and information pertaining to the medicine(s) prescribed (paper-based Evidence of Prescription form with token).
    The plain paper contains similar information as would be found on a paper prescription except for:

i. Prescriber's signature
The Evidence of Prescription form is not a legal prescription and must not be perceived as such by an authorised dispenser.

ii. Any other details which the Subject of Care may not find relevant or informative may be omitted. For example, prescriber Number, PBS Entitlement Number, Authority Number, Local Prescription Number and/or Authority Approval Number.

b. Electronic delivery service such as SMS/MMS or Email.
Only a link to the token itself (barcode or QR code) and other limited information (name of the Subject of Care, medicine name, medicine strength, number of repeats, privacy notice) may be transmitted in this manner. This will enable redemption of the prescription by an authorised dispenser but will minimise exposure of any personal or clinical information if the electronic communication is misaddressed.
Should the Subject of Care or their agent wish to access the information regarding their prescribed medicines, they may use the token to retrieve the information using a conformant system (e.g. Mobile Application).

If the Subject of Care has registered for an Active Script List, the electronic prescription will be added to that list. The Active Script List can be seen by the Subject of Care or Carer and any prescriber or dispenser that the Subject of Care or Carer has granted access to. The Subject of Care or Carer can control access to the Active Script List via a mobile or web-based application and view an audit trail of who has accessed their Active Script List.

A Subject of Care with an Active Script List for electronic prescriptions may, at the time of prescribing, request that the prescription not be added to their Active Script List by informing the prescriber that they do not want this script on their Active Script List. The prescriber must then ensure the consent for inclusion in the Active Script List is marked as negative.

All clinical systems with electronic prescribing capability will have the ability to produce a plain paper form of token.

Considerations regarding choice of token delivery include:

a. Is the Subject of Care physically able to receive a paper token?

b. Does that Subject of Care have their prescriptions managed by a carer (e.g. Residential Care Facility) who is not present and able to receive a paper token?

c. Does the Subject of Care or their carer have a device (e.g. smartphone or computer system) capable of receiving the electronic token?

d. Does the Subject of Care want to receive the token electronically?

e. Does the provider have the capability to send the token electronically?

Note: If Subjects of Care or their carer(s) are in possession of their token, they may use their smartphone or computer systems to scan the barcode/QR code, or manually enter the barcode/QR code ID (if available), on a paper token at any time.

7.4.1.3 Community Electronic Prescribing Exception Conditions and their Treatment

1) Open Prescription Delivery Service Unreachable/Unavailable
Prescribing software systems may not be able to confirm the reachability and availability of the open Prescription Delivery Service (e.g. internet unavailable).
In such circumstances, the prescriber should be made aware during the prescribing process, so they may proceed directly with the preparation of a paper prescription.

2) Electronic prescription is slow to lodge or fails to lodge in the open prescription delivery service
The Subject of Care does not have a redeemable prescription until it is lodged in the

open prescription delivery service. Prescribing software systems should provide an indication which confirms that the electronic prescription has been successfully lodged in the open prescription delivery service. If the prescriber has not received confirmation within an acceptable period, they may instruct their prescribing software to cancel the electronic prescription and produce a paper prescription.
The time which a prescriber finds "acceptable" may vary from individual to individual and in accordance with circumstances.

Note: Prescribing software systems will continue to retry until lodgement is successful or the operation is cancelled by the prescriber. As such, there is no obligation on prescribers to wait for confirmation, although it would be good practice to ensure lodgement has been successful before the Subject of Care leaves the consultation.

3) Prescriber identifies a prescribing error
While different software systems may have different methods for handling electronic prescription amendments, the Subject of Care or their agent should always be provided with a replacement token. This will ensure that the Subject of Care or their agent is made aware of the accurate and up-to-date prescription information.

Note: Depending on how the prescribing software manages the amendment, the token itself may, or may not, be different to the original.

Note: An amendment to an electronic prescription is only possible prior to the prescription having been dispensed.

4) Electronic prescription unobtainable when the Subject of Care presents at dispenser
This scenario may arise if the Subject of Care presents to a pharmacy and the pharmacy is unable to access the Open Prescription Delivery Service (e.g. internet unavailable). In such an event, the pharmacy is unable to dispense autonomously as the paper form or token for an electronic prescription does not carry any legal authority.

The prescriber must, through due diligence processes, provide confirmation of the prescription details and that it was created as an electronic prescription. The prescriber may have a record in their prescribing system when the electronic prescription was successfully lodged. The pharmacy may, where regulations permit, elect to dispense as an urgent case (upon verbal confirmation from the prescriber), and reconcile with the electronic prescription when it becomes available.

Where regulations do not permit, the prescriber may be required to cancel the electronic prescription and create a paper prescription.

5) Electronically transmitted token not received
If it is agreed that the token be sent electronically to the Subject of Care, but it is not received, the prescriber should immediately confirm the electronic address (mobile number, email address, etc.) with the Subject of Care and instruct their prescribing system to re-send the token. If the failure is persistent, the prescriber should instruct their prescribing system to print the token in paper form and provide to the Subject of Care.

In the event a prescription token is sent to the wrong electronic address the prescriber may need to cancel and create a new prescription. Re-issue of a token will not invalidate the original token which may have been sent to an individual who could present it at a dispensing organisation.

6) Subject of Care changes their mind
In the event that the Subject of Care, having been provided with an electronic prescription changes their mind and requests a paper prescription instead, the prescriber may instruct their prescribing system to cancel the electronic prescription

and create a paper prescription. In the event that the Subject of Care, having been provided with a paper prescription changes their mind and requests an electronic prescription, the prescriber may destroy the paper prescription and instruct their prescribing system to create an electronic prescription.

Note: This "change of form" is only possible prior to the prescription having been dispensed. If the prescriber is unclear regarding this fact, they may choose to deny the request.

7) Subject of Care loses their token
If the Subject of Care has lost the token, and has not previously registered for an Active Script List or elected not to have this prescription included in their Active Script List, they will be unable to redeem the prescription. The Subject of Care may request the prescriber to create a new prescription and cancel the original prescription or reissue the original token if they reasonably believe the token to be valid and operational (e.g. dispense has not yet occurred).

7.4.2 Community Electronic Dispensing

7.4.2.1 Community Electronic Dispensing Pre-conditions

In order for an authorised supplier to be able to dispense an electronic prescription, the following steps are required:

1. The Healthcare Organisation must have obtained and installed clinical software which is conformant with the requirements for electronic dispensing.
2. The Healthcare Organisation must have registered for a Healthcare Provider Identifier for Organisations (HPI-O).
3. The Healthcare Organisation must have contracted with a conformant Open Prescription Delivery Service for the delivery of electronic prescriptions and established a connection with its clinical software.
4. The Healthcare Organisation must have installed equipment necessary to acquire the tokens used to access electronic prescriptions. This may include, but is not limited to, equipment that can scan tokens presented as barcodes or QR codes on mobile devices or on paper.
5. The Healthcare Organisation must have defined and implemented a security policy which governs the access to electronic dispensing capability and information in its clinical software.
6. The Healthcare Organisation must have approved employees as approved dispensers and provisioned them with access to the electronic dispensing capability.

7.4.2.2 Community Electronic Dispensing Process

Dispensers in a community context such as community pharmacy may see more substantive changes to current process for supply against an electronic prescription.

The following are considerations for pharmacies engaged in electronic prescribing and places where dispensing software can alleviate potential issues:

1) Method of presentation
Community pharmacy may receive requests for prescription supply in the following forms:

    a. Paper Prescription
    Paper prescriptions will persist, and pharmacies will be obliged to dispense against paper prescriptions as they presently do.

Paper prescriptions may carry an ETP barcode/QR code which may be scanned to facilitate the retrieval of prescription details into the dispensing system.
As per current state, the paper prescription is a legal instrument and information acquired electronically in these circumstances has no legal standing.

b. Evidence of Prescription
Subjects of Care who elect to receive electronic prescriptions may also elect to receive the information about the prescription and the token in paper form. The Subject of Care provides the token in paper form to the pharmacist. The pharmacist scans the token (barcode/QR code) just as they would on a paper prescription. The Subject of Care may also choose to present the Evidence of Prescription to the pharmacist.

In this case, however, the Evidence of Prescription (i.e. paper token) has no legal standing. It is the electronically retrieved prescription (retrieved using the token), displayed on the dispensing system, that is the legal instrument. Pharmacists may NOT provide supply based on information contained on the Evidence of Prescription. This information is intended for the Subject of Care and may NOT be construed, in any way, to constitute a legal authority to dispense.

There is no requirement for pharmacies to retain the Evidence of Prescription. If the Subject of Care asks the pharmacy to dispose of the Evidence of Prescription on their behalf, it should be disposed of securely.

c. Token presented on Mobile Device
Subjects of Care may elect to manage their tokens on their mobile devices. The mobile device will display the token in a manner suitable for scanning using existing pharmacy equipment (similar to an airline boarding pass on a mobile device). Pharmacies may need to consider the physical location of scanning equipment and display screens. Subjects of Care may be unwilling to surrender their mobile devices for scanning and there is a risk that the mobile device's screen could lock if there is a delay between acquisition and scanning.
As above, there may be information present on the mobile device which refers to prescribed medicines. This information is intended for the Subject of Care and may NOT be construed, in any way, to constitute a legal authority to dispense.

d. Token received electronically
Where the pharmacy has implemented the capability, Subjects of Care may elect to send their tokens electronically to a pharmacy. The pharmacy may use the token to retrieve the electronic prescription. This is an optional facility.
As above, there may be information present on the electronic communication which refers to prescribed medicines. This information is intended for the Subject of Care and may NOT be construed, in any way, to constitute a legal authority to dispense.

e. Active Script List
A Subject of Care, or their Carer or Agent, may request the dispenser to perform a search for active prescriptions from the open prescription delivery services using their personally identifying information. This requires the SoC to be registered for an Active Script List, which can be facilitated by the pharmacy via the Assisted Registration Service

Once registered with the Active Script List Registry, the Subject of Care determines who can access their Active Script List, and for how long. If a prescriber or a dispenser attempts to access a Subject of Care's Active Script List for the first time, the Subject of Care will receive an electronic notification. The Subject of Care can:

- accept the request;
- accept the request for a pre-defined limited period of time; or

- reject the request.

Using a prescription app, the Subject of Care can remove access for prescribers or dispensers that previously had access to their Active Script List. Subjects of Care can also see an audit trail of prescriber and dispenser activity related to their Active Script List.

2) Prescriber's original instructions

All paper prescriptions, including repeat authorisations, are attached to or carry the original instructions of the prescriber. For an electronic prescription, the prescriber's original instructions are available ONLY in electronic form via the dispensing system having been obtained from a conformant open prescription delivery service.

While there may be information accompanying the token presented by the Subject of Care on the Evidence of Prescription, this represents advice for the Subject of Care and may NOT be construed, in any way, to constitute a legal authority to dispense.

When either a token or the Active Script List model is used by the dispensing system to retrieve the electronic prescription, the dispensing system must display:

a. The details contained on the original prescription

b. The "status" of the electronic prescription (e.g. "cancelled")

c. The details contained in the previous dispense record (if any)

d. Annotations that may have been recorded by previous dispenser(s) (if any)

3) Evidence of ownership

As is the case currently, dispensers in community pharmacy may assess the person presenting the prescription and establish a reasonable expectation that the person has a right of supply. For example, the pharmacist has a reasonable belief that the person presenting the prescription is, or is an authorised agent of, the person for whom the medicine is intended.

When a person presents a paper prescription, part of that assessment is simply that the person is physically in possession of an artefact (the prescription) that is difficult to forge, difficult to copy, and is signed by the prescriber. There may be lesser assurance if the person is in possession with a paper or electronic token.

Dispensers may, as a result, place greater reliance on other methods of verification. Where, for example, the electronic prescription carries information which does not accompany the token, dispensers may consider this information in the context of the person. Date of birth may, for example, be available in the electronic prescription but will not be carried with the token.

Where a token is acquired electronically, and the Subject of Care is not physically present, dispensers may choose to rely on other methods. For example, end-user identity verification undertaken by the organisation providing the electronic token delivery.

4) Selection of medicines required

If the Subject of Care or their Carer allowed access to the Active Script List, the Pharmacist will be able to view all current active scripts. The SoC/Carer/Agent can nominate which prescriptions they would like dispensed. Each of the electronic prescriptions nominated by the SOC/Carer/Agent can then be downloaded from the PDS for dispensing.
Any prescription items uploaded to the Active Script List that do not contain a token, i.e. because they are a record of an electronic transfer of prescription, will require the presentation of the paper script to facilitate their dispense.

5) Decision to not supply

Where the dispenser retrieves the electronic prescription, which is valid and available for dispensing, but decides not to dispense (for example, they are out of stock of the medicine, or

the Subject of Care decides that they do not want to wait), the dispenser will cancel the dispensing process. The electronic prescription, which will have been locked when retrieved from the Open Prescription Delivery Service, will be returned to an unlocked state, and be available for dispensing at another time.

If the decision to not supply is due to concerns regarding patient safety, fraud or excessive supply of high-risk medication then the dispenser may choose to disable the prescription in line with legislative requirements. A disabled prescription will not be available to other dispensers unless the dispenser responsible for disabling the prescription re-enables it.

6) Authorised variation of prescriber instructions
There are situations when, if and as permitted under regulation, the dispenser may need to query and confirm the prescriber's instructions.

   If permitted under regulation, a dispenser may accept a prescriber's verbal variation to instructions and dispense accordingly. When doing so, they may be required to annotate the original prescription with a note indicating the reason for variation between the original instructions and the record of supply. Such annotations are intended for subsequent dispensers as an indication that supply was not made in error.
   Such annotations must, in the case of an electronic prescription, be recorded in the dispensing system, the prescription delivery service and made available to any subsequent dispenser through the Open Prescription Delivery Service.

7) Medicine(s) dispensed

   The dispenser will complete their dispensing processes and update their local dispensing system to show the medicine(s) as dispensed. At this point, the dispensing system will upload a dispense record to the Open Prescription Delivery Service to reflect the dispense event.

8) Dispense amendment

   While different systems may have different approaches to managing amendment of a dispense record (e.g. because of a dispensing error or because the Subject of Care has declined supply), information reflecting the correct dispense event should be communicated to the open prescription delivery service. This may be achieved by cancelling the original dispense record and issuing the correct dispense record.

9) Receipt of supply

   Where regulation requires a receipt of supply record, manual capture is the current proposed solution.

10) Provision of new tokens

    A new token will be required for subsequent repeats under the token model. If there are subsequent dispenses available on the electronic prescription, the pharmacy must provide the Subject of Care with a new token that may be used by a subsequent dispenser to retrieve the repeats.

    Like the token provided with a prescription, new tokens must not be construed by a subsequent dispenser as representing a legal authority. The legal authority is the original electronic prescription as authored by a prescriber and must be retrieved from an open prescription delivery service when using a token corresponding to a repeat.

    Depending on the capability of the dispensing software and the method by which the prescription token was presented, the dispenser may print and provide a paper token or new Evidence of Prescription to the Subject of Care and/or issue the new token via electronic means.

    If the dispense record has been amended, the Subject of Care should always be provided with a token that allows access to the subsequent repeats.

If the prescription token was registered in the SoC's Active Script List the new token generated for repeats will also be uploaded to the Active Script List.

11) Token storage (prescriptions held on file)
Where the Subject of Care obtains supply for repeat prescriptions from the same pharmacy, they may request that the pharmacy retain their paper prescription. This is largely for the convenience of the Subject of Care and may mean that the prescription is less likely to be lost. In similar fashion, a Subject of Care may request that the pharmacy retain their token on file.

In this case, however, the pharmacy would retain (electronically or physically) a copy of the token used to retrieve their electronic prescription. This does not prevent the SoC from presenting the token at a different pharmacy should the need arise.
Prior to supply, the token must be used to retrieve the legal electronic prescription and confirm that the prescription has not been dispensed elsewhere.

At each dispense, a new token is generated for the repeat authorisation (if any) and, at the request of the Subject of Care, stored for subsequent use.

12) Confirmation of receipt of dispense event from the open prescription delivery service

In the prescribing setting, significant emphasis is placed on the Subject of Care having reliable access to the electronic prescription from the time they leave the consultation. This means that it is recommended that the prescriber is proactively notified if the electronic prescription is not acknowledged as loaded to the open prescription delivery service so that they may choose to instead prepare a paper prescription.

This same level of emphasis is not imposed on acknowledgement of receipt of the dispense record in the open prescription delivery service in the dispensing setting for a number of reasons:

- In the vast majority of cases, the Subject of Care will have accessed the necessary medicines.
- Time will pass before they attempt to have them dispensed again (in the case of a repeat authorisation).
- The dispenser does not have the ability to revert from electronic to paper prescription.

Therefore, dispensing solutions may choose to notify (or not) the dispenser should there be a delay in acknowledgement of receipt of the dispense record.

7.4.2.3 Community Electronic Dispensing Exception Conditions and their Treatment

1) Request for electronic prescription timed out
In this scenario, dispensers should retry the operation.

   If the situation is persistent, continue as "Open Prescription Delivery Service Unreachable/Unavailable" (See below)

2) Electronic prescription not found
Dispensers should be aware that there are several possibilities which may give rise to this scenario, including:

   a. The token being presented is somehow corrupt and doesn't refer to a prescription in the delivery service.

   b. A technical issue with the inter-prescription exchange service.

   The dispenser may, in such cases, contact the prescriber.

   When an electronic prescription is created, the prescribing system will maintain a record of when confirmation of lodgement in the delivery service was received.

If confirmation has not yet been received, or has only just been received, the dispenser might be advised to wait and try again.

If confirmation of lodgement was received some time ago, it may be that the token is corrupt. In this case, the dispenser may obtain the token details from the prescriber and use these to retrieve the electronic prescription.

If the electronic prescription still cannot be retrieved, there may be an error in the delivery service infrastructure and the appropriate service operator advised. The prescriber and dispenser may, subject to regulation, agree to an urgent case (owing prescription).

3) Electronic prescription cancelled
Prescribers can cancel an electronic prescription at any time prior to it being dispensed.

   If the token used to attempt to retrieve a prescription is for a prescription that has been cancelled, the dispenser should advise the Subject of Care and refuse supply.

4) Electronic prescription already dispensed or disabled
If the token used to attempt to retrieve a prescription is for a prescription that has already been dispensed, or has been disabled the dispenser should advise the Subject of Care.
If the pharmacist has reason to believe that the Subject of Care is without necessary medicine, they may contact the prescriber and, if permitted under regulation, request an urgent case (owing prescription), or they may supply medicine under emergency supply provisions if the prescriber is unavailable.

5) Subject of Care presents claiming they have lost or misplaced their token
If the prescription has previously been dispensed at this pharmacy, the pharmacy may have a record of the dispense event, together with the dispense token and be able to retrieve the prescription.

   If there has been no prior dispense of this prescription at this pharmacy, this represents a “lost prescription” scenario and normal practice applied i.e. if the pharmacist agrees and regulations permit, an urgent case (owing prescription) or emergency supply process applied.

6) Open Prescription Delivery Service Unreachable/Unavailable on attempting to retrieve an electronic prescription
The pharmacist cannot dispense from information which may accompany the token. The pharmacists may, if they choose to proceed, contact the prescriber and ascertain the details of the prescription, when it was created, when it was lodged in the open prescription delivery service, whether it is still in date and to confirm any remaining supply (repeats).

   If these considerations warrant, and the dispenser agrees (post due diligence), supply may be provided on an urgent case (prescription owing) basis. The dispense event should be reconciled as soon as practical when the open prescription delivery service becomes available again.

7) Open Prescription Delivery Service Unreachable/Unavailable on sending of dispense record
The dispensing software should continue to attempt to send the dispense record, or store and forward once the open prescription delivery service becomes available again.

7.5 Residential Care Context

Subjects of Care in residential care may be receiving more medicines than those in the general community and on a more regular basis. Residential Care Facilities manage the administration of

medicines for their residents as recorded on their residential medication chart and may also secure supply on behalf of their residents.

The chart is a grouping mechanism that supports viewing, dispensing and packing of a set of prescriptions and other medicines/treatments for a SoC or resident.

There are existing workflows that have been designed to maximise clinical safety within the context of residential care facilities. It is not intended to disrupt these established workflows with the introduction of electronic prescribing; rather it is intended that the prescription created on the medication chart flows in a secure electronic way from the prescriber, to the dispenser and, where applicable, through for PBS claiming; removing the need for a separate paper prescription as the legal instrument.

Under the future state, residential medication charts may be in electronic form and:

- Comply with the requirements of the National Residential Medication Chart; and
- Be conformant with the electronic prescribing requirements for prescribing systems.

Medication charts should be an accurate, reliable and complete record of current prescribed, non-prescription and complementary or alternative medicines used by the resident. They are the definitive source for the administration of medicines. Communication between the facility and the pharmacy from time to time will inform supply. All line items on a chart including prescription medicines, complementary or alternative medicines constitute a legal prescription.. The corresponding electronic prescription will need to contain the necessary data elements from the chart header to be a complete prescription record and thus a valid electronic prescription.

Throughout this section, the term “regular pharmacy” is used to refer to either:

i. the pharmacy contracted by the residential care facility to perform the majority of their medication supply, where consent has been given by the resident or their representative to use the contracted pharmacy, or

ii. an alternative pharmacy that the resident chooses to use to dispense against their medication chart.

The “regular pharmacy” will perform the pharmacist review.

Subjects of Care may be issued an electronic prescription external to a medication chart (e.g. by a specialist or so they can exercise choice of pharmacy), and they are able to register for an Active Script List.

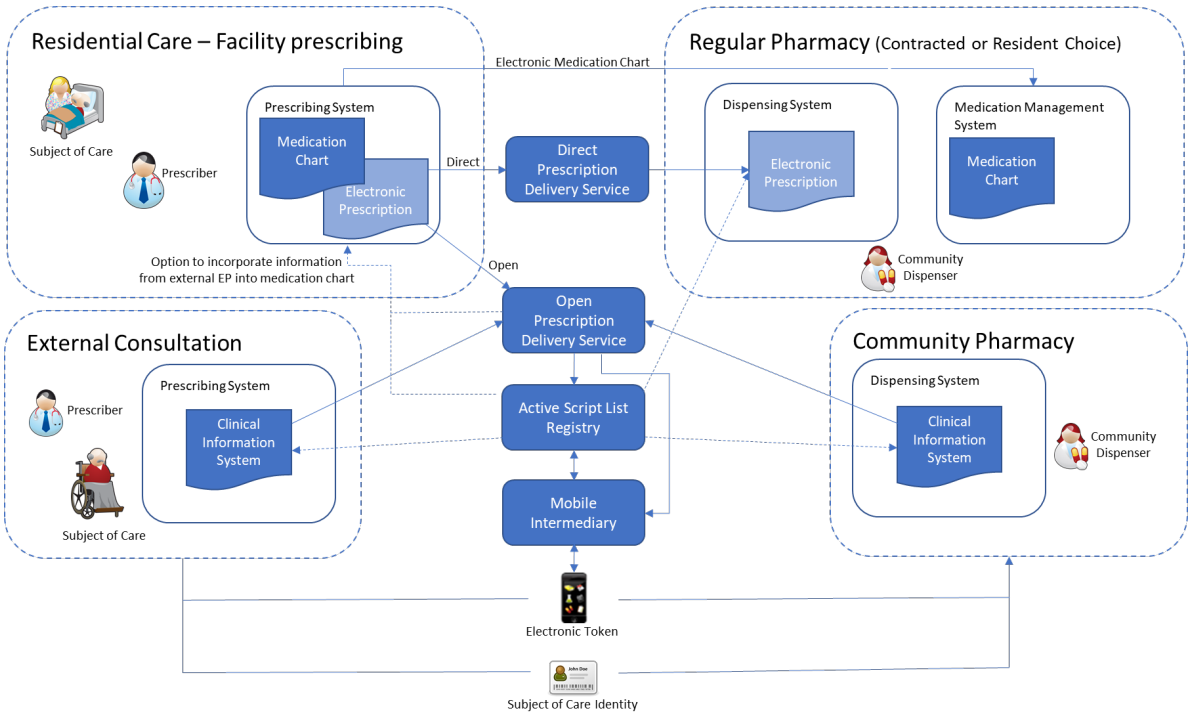


Figure 6. Overview of Residential Care context.

7.5.1 Residential Care Electronic Prescribing

Administration of medicines is a key process supported by the electronic medication chart within residential care facilities, but is outside the scope of the Electronic Prescriptions Project. Any reference to the administration of medicines is purely contextual and not intended to imply that this is within the scope of this project.

7.5.1.1 Residential Care Electronic Prescribing Pre-conditions

In order for an authorised prescriber to be able to create an electronic prescription in a Residential Care Facility electronic medication chart, the following steps are required:

1. The Residential Care Facility must have obtained and installed clinical software which is conformant with the requirements for electronic prescriptions.
2. The Residential Care Facility must have established Prescription Delivery Services (Open or Direct) for the transfer of electronic prescriptions written within an electronic medication chart to each resident's regular pharmacy, which may be a contracted pharmacy.
3. The Residential Care Facility must have defined and implemented a security policy which governs the access to electronic prescribing capability and information in its clinical software.
4. The Residential Care Facility must have approved prescribers and provisioned them with access to the electronic prescribing capability.

7.5.1.2 Residential Care Electronic Prescribing Process

There are several variations in the management of Subject of Care prescriptions and the methods though which supply is obtained. Prescribers within residential care context should find the electronic prescribing process similar but streamlined to the existing medication chart process.

1) Prescription by a regular prescriber
Residents may be attended by a regular prescriber who is provisioned with access to author electronic medication charts in the facility's prescribing system.

   a. The electronic medication chart is created by a prescriber per state legislative requirements within the electronic medication chart system adding all the Subject of Care's current medicines. The chart is approved and dated. Each line is an electronic prescription.

   b. The electronic medication chart is reviewed on a regular basis in accordance with regulatory requirements.

   c. The electronic medication chart may be amended at any time by an authorised prescriber.

      i. New lines may be added – these are new electronic prescriptions.

      ii. Existing medicines can be ceased and are therefore no longer valid for dispensing or administration.

      iii. Changes to existing medicines (dose, route, frequency etc.) may be affected by amending the current line or by ceasing the current line and adding a new line.

   d. If there is a change to the regular pharmacy during the chart validity period (because of a change to the contracted pharmacy or due to a resident choosing an alternative pharmacy), the chart will be ceased, and a new chart created and authorised by an authorised prescriber. The electronic medication chart system may facilitate this by copying the previous active medicines to a new medication chart.

2) Prescription by another authorised prescriber
Residents may attend or be attended by a physician on an ad hoc basis. If the physician is an authorised prescriber, and has access to the facility's electronic medication chart software, they may prescribe directly onto the chart and create an electronic prescription.

   If the physician does not have access to the facility's medication chart system, the prescriber may, with the Subject of Care's agreement, issue an electronic prescription outside of the chart, submitted to an Open Prescription Delivery Service, and either:

   - add the prescription to the Subject of Care's Active Script List (where the Subject of Care has registered for an Active Script List); or
   - provide the token to the Subject of Care or, with the Subject of Care's approval, send the token directly to the residential facility's electronic address for inclusion in the medication chart system.

   The medication chart system may use the Active Script List or the token to retrieve the details of prescriptions from the Open Prescription Delivery Service and an authorised prescriber(e.g. regular GP, locum or nurse practitioner) may attach these details to the Subject of Care's medication chart.

   Note: The system may not automatically update the Subject of Care's medication chart with the new information. Generally, the new medicine will be charted by the Subject of Care's regular GP or another authorised prescriber, noting that it was prescribed (and if applicable dispensed) elsewhere, ensuring that there is a medication review prior to the medication chart being updated.

   Note: Where a Subject of Care (or their agent) wishes to have a prescription to be dispensed at a pharmacy of their choice (as opposed to the whole chart being dispensed at a pharmacy of their choice), there is no requirement that this prescription be produced from the electronic medication chart system. If the functionality is available through the electronic medication

chart software it may be used, otherwise the prescriber may use their own clinical system to generate an electronic prescription (e.g. GP uses their own CIS) or they may write a paper prescription.

7.5.1.3 Residential Care Electronic Prescribing Exception Conditions and their Treatment

1 Open Prescription Delivery Service Unreachable/Unavailable, or Electronic prescription is slow to lodge or fails to lodge in the open prescription delivery service

Unlike prescriptions in the community context described in the previous section, falling back to paper medication charts is not a safe or effective option. The electronic medication charts software should continue to attempt to send the chart and prescriptions, or store and forward once the open prescription delivery service becomes available. The facility and pharmacy will communicate directly to ensure that residents' medicine supply is affected in a timely manner.

7.5.2 Residential Care Electronic Dispensing Process

1) Supply requested from the resident's regular pharmacy

Residential Care Facilities may source supply from contracted community pharmacies if required and where the Subject of Care has consented, or the Subject of Care may have nominated a different pharmacy as their regular pharmacy.

The Residential Care Facility may utilise any form of Prescription Delivery Service to send the medication chart, or the group of active prescriptions that comprise the medication chart, to the resident's regular pharmacy. The pharmacy will need to retrieve the electronic prescriptions to be dispensed from the relevant Prescription Delivery Service[1].

Note: Where a Subject of Care (or their agent) wishes to have all their prescriptions dispensed at a pharmacy of their choice, there is a requirement that the dispenser can view the full medication chart. However, there is no requirement that the pharmacy selected by the SoC must view the full medication chart electronically. A paper copy of the electronic chart can be provided by the facility to the pharmacy and the pharmacy can then use the tokens printed on the paper chart or found in the SOCs Active Script List to download the electronic prescriptions from the Open Prescription Delivery Service.

7.5.2.1 Residential Care Electronic Dispensing Exception Conditions and their Treatment

1 Open Prescription Delivery Service Unreachable/Unavailable, or Electronic prescription not found

If there is no error recorded in the prescribing system, the dispensing system should continue to poll the Open Prescription Delivery Service until the electronic prescription is available.

If the inability to retrieve is persistent, the dispenser should contact the facility that holds the medication chart, and request a "refresh", which would resend to the PDS.

7.6 Admitted Inpatient Context

This covers the ordering and dispensing of medicines during an admitted inpatient episode of care. Prescriptions on discharge and prescriptions in outpatient clinics are covered in a following section.

PBS Reform Agreements in place with some states and territories allow approved public hospitals to prescribe and dispense PBS-subsidised medicines, chemotherapy drugs and highly specialised drugs to day-admitted patients, outpatients, and patients upon discharge.

[1] This process is the same as that detailed in 6.2.4.2 above, and has the same preconditions, exception conditions and treatments.

7.6.1 Public Hospital – Admitted Inpatient

The following diagram provides a high-level illustration of the systems and actions within the Public Hospital Inpatient context for medication orders that need to be supplied by the pharmacy. It does not consider supply and administration of medicines from imprest stock, which is out of scope for electronic prescribing. It shows the Direct Prescription Delivery Service operating for inpatient medication orders (which will cover the majority of public hospitals), and the Open Prescription Delivery Service operating where direct integration with the pharmacy is not available.

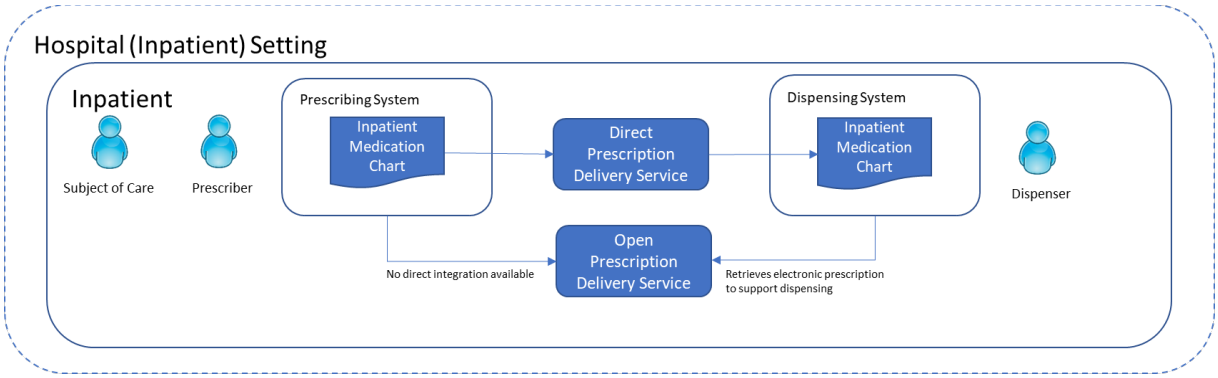


Figure 7. Overview of Hospital Inpatient context.

It is noted that in some hospital systems, the system in which medicines are ordered or prescribed, and the system in which the order is reviewed and in which the dispense is authorised is one single system. This provides significant benefits in both efficiency and safety. The EPP Solution Architecture does not ***require*** that the Direct Prescription Delivery Service is an external service, or that prescriptions need to be transferred out of the prescribing system into a different dispensing system in order to constitute an electronic prescription. It is acknowledged that within hospital workflows where there is direct integration between the prescribing and dispensing system, some of the data elements that are required for a valid electronic prescription may be completed as part of the dispensing workflow.

Even if the prescribing system is connected to the dispensing system through an open Prescription Delivery Service, the electronic prescriptions will not be added to the SoC's Active Script List (should they have one) as the prescription is only active and valid within the context of the SoC's hospital admission. This is consistent with the treatment proposed for (for example) dosing points. Medicines on discharge are treated separately below.

7.6.1.1 Public Hospital Inpatient Electronic Prescribing

Subjects of Care within inpatient hospital care may be receiving more medicines than those in the general community as well as being on more short-term medicines such as antibiotics, antiemetics, subcutaneous anticoagulants and corticosteroids. Hospitals typically manage the administration of medicines for their inpatients on their hospital medication chart and in almost all cases the hospital will also supply the medicines[2]. In line with prescribers' instructions, a number of medicines are supplied directly from ward or imprest stock and administered to patients. This workflow and those medication orders are out of scope for Electronic Prescribing.

[2] Consumer choice in these circumstances is being maintained, as the common practice when people are admitted to a hospital is for the hospital to have a consent process for treatment that covers medication supply.

7.6.1.2 Public Hospital Inpatient Electronic Prescribing Pre-conditions

In order for an authorised prescriber to be able to create an electronic prescription within a hospital for an inpatient the following core steps are required:

1. The hospital must have defined and implemented a security policy which governs the access to electronic prescribing capability and information in its clinical software.
2. The hospital must have approved prescribers and provisioned them with access to the electronic prescribing capability.

In addition to these core steps, in order to support hospital medication chart electronic prescribing, the hospital must also complete the following steps:

1. The hospital must have obtained and installed clinical software which is conformant with the requirements for electronic prescriptions (including medication charts).
2. The hospital must have established Prescription Delivery Services (open or direct, or both) with an in-hospital pharmacy or an external pharmacy. Note that the Direct Prescription Delivery Service will in most cases be via point-to-point or enterprise integration which meets the minimum conformance requirements for a Prescription Delivery Service, or it may be a logical concept where both the prescribing and dispense authorisations are undertaken within a single system.

7.6.1.3 Public Hospital Electronic Prescribing Process - Inpatient

Prescribers within inpatient care will find the electronic prescribing process similar but streamlined to the existing medication chart processing.

Patients are attended by the hospital-based prescriber who is provisioned with access to the facility's medication chart (prescribing) system.

a. The medication chart is created by the prescriber within the medication chart system adding all the Subject of Care's current medicines. The chart is signed and dated per relevant legislation and policy.
b. The medication chart is reviewed on a regular basis in accordance with regulatory requirements.
c. The medication chart may be amended at any time by an authorised prescriber.

7.6.1.4 Public Hospital Electronic Prescribing Exception Conditions and their Treatment

When prescribing medicines for the patient in the in-patient setting, the hospital medication chart is less likely to have the technical issues outlined within community prescribing and dispensing as they occur on the same computer network and internet outages should have limited impact. Hospitals shall define their own business continuity strategy to account for system outages, and this will most likely involve paper hospital medication chart prescribing.

7.6.2 Private Hospital – Admitted Inpatient

Private hospital prescribing is achieved in a variety of ways.

They may:

use a compliant electronic hospital medication chart system connected via an open or direct prescription delivery service to the dispensing pharmacy. This context is identical to that mentioned in the public hospital context (7.6.1.1 above), except that fewer medicines are supplied from imprest stock because prescribed medicines that are dispensed for the patient (rather than supplied from imprest) are eligible for PBS/RPBS rebates.

—

the treating prescriber may write prescriptions on their own standalone prescribing system. Where the prescribers use their own stand-alone prescribing software, prescriptions may still be filled by in-hospital or contracted pharmacies, but they may also be filled by a community pharmacy if the Subject of Care chooses. This context is identical to the Community Context described in 7.4.1.

—

7.6.2.1 Private Hospital Electronic Prescribing Pre-Conditions

In order for an authorised prescriber to be able to create electronic prescriptions within a hospital the following core steps are required:

1. The hospital must have defined and implemented a security policy which governs the access to electronic prescribing capability and information in its clinical software.
2. The hospital must have approved prescribers and provisioned them with access to the electronic prescribing capability.
3. The hospital must have obtained and installed clinical software which is conformant with the requirements for electronic prescriptions.
4. The hospital must have established conformant Open or Direct Prescription Delivery Services with an in-hospital pharmacy or an external pharmacy. Note that the Direct Prescription Delivery Service may be via point-to-point or enterprise integration which meets the minimum conformance requirements for a Direct Prescription Delivery Service as is the case with public hospitals.

7.6.2.2 Private Hospital Electronic Prescribing Process

The process is consistent with that of public hospitals (see 7.6.1.1)

7.6.2.3 Private Hospital Electronic Prescribing Exception Conditions and their Treatment

In the event that the private hospital chooses to implement an Open Prescription Delivery Service the exception conditions are identical to that of community pharmacy (Community Electronic Dispensing exception conditions and their treatment). In these events using paper prescriptions would be the most likely contingency plan for exception cases and as such private hospitals should make appropriate business continuity plans and ensure the appropriate stationery is available.

7.7 Outpatient and Discharge Context

Prescribing from outpatient clinics and emergency departments (EDs) vary from both the inpatient context and the community context. If medicines are provided *during the episode of care,* they are likely to be sourced in accordance with hospital practice from the hospital pharmacy. As per the hospital inpatient context described above, the way consumer choice is maintained as the common practice when people attend an outpatient clinic or ED is for the hospital to have a consent process for treatment that covers medicines supply for administration during the episode of care.

Prescriptions provided at the conclusion of the episode (i.e. on discharge from inpatient admission, on discharge from ED, and at the conclusion of an outpatient appointment) should, where possible, be provided in a manner that supports patient choice of source of supply. ("Where possible" as some S100s may only be available from the hospital dispensary.)

The following diagram provides a high-level illustration of the systems and actions within the Public Hospital context on discharge from inpatient or emergency settings, or from outpatients clinics (noting that these may also operate through the Direct Prescription Delivery Service should the Subject of Care not wish to exercise choice of dispenser).

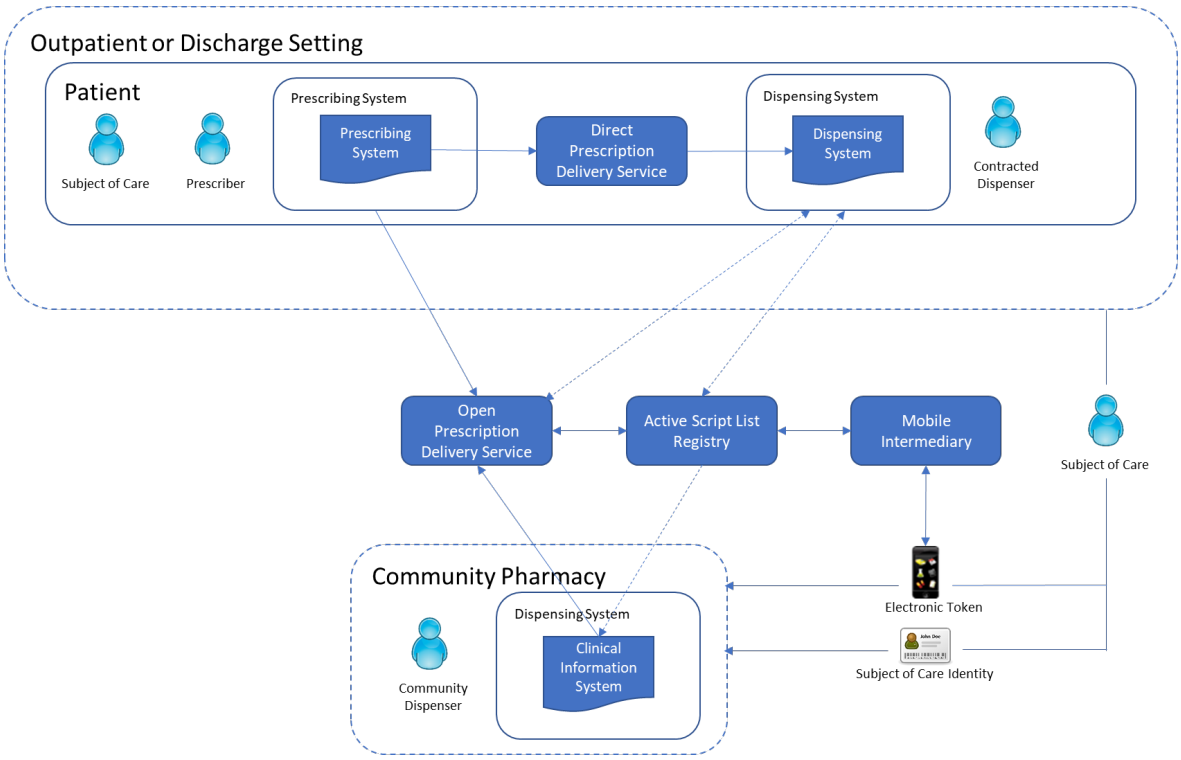


Figure 7. Overview of Outpatient and Discharge context.

7.7.1 Outpatient and Discharge Electronic Prescribing Pre-conditions

In order for an authorised prescriber to be able to create an electronic prescription in an outpatient clinic or on inpatient discharge, the following steps are required:

1. The organisation must have obtained and installed clinical software which is conformant with the requirements for electronic prescriptions.
2. The organisation must have defined and implemented a security policy which governs the access to electronic prescribing capability and information in its clinical software.
3. The organisation must have approved prescribers and provisioned them with access to the electronic prescribing capability.

In order for an authorised prescriber to create a valid electronic prescription that is dispensed by a contracted or in-hospital pharmacy:

- The organisation must have established Open or Direct Prescription Delivery Services with any contracted or in-hospital pharmacies.

In order for an authorised prescriber to create a valid electronic prescription that can be filled at a community pharmacy of the Subject of Care's choosing the following steps are required:

- The organisation must have contracted with an Open Prescription Delivery Service for the delivery of electronic prescriptions to community pharmacies and established a connection with its clinical software.
- The clinical software must be conformant with the requirements for electronic prescriptions sent via an open prescription delivery service.

7.7.2 Outpatient and Discharge Electronic Prescribing Process

Electronic prescribing for medicines to be administered during the episode of care remain similar to the existing workflow and align to 7.6.1.1 Public Hospital Inpatient Electronic Prescribing.

For prescribing at the end of the episode, a decision is required.

1. Should the prescription be provided as a paper prescription or an electronic prescription? Considerations include:
    a. Does the prescription carry specific legislative requirements for a physical (handwritten) signature, annotation or authority? In these circumstances, a paper prescription must be provided.
    b. Does the Subject of Care wish to have the prescription filled by the in-hospital or contracted pharmacy, or do they wish to take the prescription to a community pharmacy?
    c. Does the Subject of Care wish to receive an electronic prescription? Subjects of Care have the right to express a specific choice of form.
2. If the Subject of Care wishes to have the prescription filled by the in-hospital or contracted pharmacy, hospital workflows will determine whether the prescription will be sent to the pharmacy via the direct prescription delivery service, or will send an electronic prescription to an Open Prescription Delivery Service for the in-hospital or contracted pharmacy to retrieve. The latter method will follow section 7.4.1 Community Electronic Prescribing discussed above.
3. If the Subject of Care requests an electronic prescription and would like it to be filled by a community pharmacy, they may be issued with a token, the prescription can be added to their Active Script List or both. The approach on what form a token takes is identical to section 7.4.1 Community Electronic Prescribing discussed above, as are the exception conditions and treatments.

7.7.3 Outpatient and Discharge Electronic Prescribing Exception Conditions and their Treatment

If the Subject of Care wishes to have the prescription filled by the in-hospital or contracted pharmacy, and the prescription is sent via the direct prescription delivery service, the exception conditions are identical to those in the hospital scenarios raised above.

If instead the Subject of Care chooses to have the prescription filled by a community pharmacy of their choosing, and/or the prescription is sent via an Open Prescription Delivery Service, the exception conditions will be identical to that of any community pharmacy dispensing events as described above.

8 Data Elements

The Electronic Prescriptions Solution Architecture, in leveraging existing solutions and permitting further industry innovation, does not define or declare a complete normative data model for the storage, transmission or exchange of prescription or dispense information.

It does, however, require the inclusion of certain data elements which must be accommodated for an Open Prescription Delivery Service implementation to be declared conformant. These are detailed in the relevant national legislation and state and territory regulations.

For guidance on the possible contents of a prescription and dispense record, reference can be made to ATS 4888.1 – 2013 or the eHealth Prescription Record v1.2.1[3].

8.1 Electronic Record Metadata

Each electronic prescription record and dispense record has two sections:

- Metadata - that is decrypted within the Open PDS to support the technical operation of the system
- Clinical content - the body of the record containing personal and sensitive information, which remains encrypted within the Open PDS

Together the metadata and the clinical content comprise the Electronic Prescription.

The requirements for the prescription metadata are described in the tables below. Normative data elements are identified in blue, in the context of example data structures so their use and cardinality may be readily understood.

8.1.1 Electronic Prescription Metadata

Electronic Prescription – metadata			
Field Name	**Data type**	**Optionality**	**Notes**
Delivery Service Prescription Identifier (DSPID)	String	Required	The barcode or QR code on a token is a representation of this value and is used to retrieve the prescription.
Prescription software conformance identifier	String	Normative - Required	Conformance ID of the prescribing software.
originalRepositorySoftUniqueId	String	Normative - Required	This is the conformance id of the Open PDS to which the prescription is sent. This will be populated on submission of the electronic prescription to an Open Prescription Delivery Service.
Electronic Address	String	Normative - Optional	The electronic address to which an electronic prescription notification may be sent.
ASLR consent indicator	Boolean	Optional	To indicate if the electronic prescription is an Active Script List prescription and should be forwarded by the Open PDS to the Active Script List Registry. If ASLR identifier is populated the consent indicator must also be populated

[3] The eHealth prescription record specification can be found on the Agency's website at: https://www.digitalhealth.gov.au/implementation-resources/clinical-documents/EP-1919-2015/NEHTA-1913-2015

ASLR identifier	String	Optional	The identifier for the Active Script List Registry to which the electronic prescription is to be sent.
Individual Healthcare Identifier (IHI) number	String	Required	To support the identification of prescriptions contained in an Open PDS belonging to a specific SoC for the purposes of pre-populating their Active Script List.
Other Metadata			Additional metadata as may be required to support the operation of the delivery service.

8.1.2 Dispense Record Metadata

Electronic Prescription – metadata			
Field Name	**Data type**	**Optionality**	**Notes**
Delivery Service Prescription Identifier (DSPID)	String	Required	The barcode or QR code on a token is a representation of this value and is used to retrieve the dispense record(s) (including repeat record(s)) is applicable.
Dispense software conformance identifier	String	Normative - Required	Conformance ID of the dispensing software.
originalRepositorySoftUniqueId	String	Normative - Required	This is the conformance id of the Open PDS to which the prescription was originally sent. This will need to be copied from the original prescription.
RepositorySoftUniqueId	String	Normative - Required	This will be populated on submission of the Dispense Record to an Open Prescription Delivery Service.
Electronic Address	String	Normative - Optional	The electronic address to which an electronic dispense record notification may be sent.
Other Metadata			Additional metadata as may be required to support the operation of the delivery service.

8.2 Evidence of Prescription Data Requirements

The following tables outline the logical data requirements for presentation on an Evidence of Prescription for a Subject of Care or their agent.

8.2.1 Evidence of Prescription Provided Physically to the Subject of Care (or their agent) at Time of Prescription

Where the Evidence of Prescription can be guaranteed to be provided directly to the Subject of Care or their agent (for example, printed and handed physically over, presented on a screen for printing in an online ordering environment), the following data elements should be provided:

Logical Data Description	**Data Elements**
Barcode/QR code	A barcode or QR code accompanied by the alphanumeric representation

Barcode/QR code number (DSPID)	DSPID
Name of the Subject of Care	Name title, Given Name, Family Name
Name of the prescriber	Name title, Given Name, Family Name
Name of the prescriber organisation	Organisation Name
Contact Details of the prescriber/organisation	Address (Line 1, Line 2, Line 3, Suburb, State, Postcode) Telephone number
Medicine name and strength	Medicine name Medicine strength
Date prescribed	Date prescribed
Number of repeats available	Maximum number of repeats
Privacy notice	The privacy notice relating to the collection of personal information by the Australian Government to support the assessment and administration of payments and services.

8.2.2 Evidence of Prescription Provided Physically to the Subject of Care (or their agent) at Time of Dispense

Where the Evidence of Prescription can be guaranteed to be provided directly to the Subject of Care or their agent (for example, printed and handed physically over, presented on a screen for printing in an online ordering environment), the following data elements should be provided on dispense:

Logical Data Description	**Data Elements**
Barcode/QR code	A barcode or QR code accompanied by the alphanumeric representation
Barcode/QR code number (DSPID)	DSPID
Name of the Subject of Care	Name title, Given Name, Family Name
Name of the prescriber	Name title, Given Name, Family Name
Name of the prescriber organisation (optional)	Prescribing Organisation Name
Contact Details of the prescriber/organisation	Prescribing Organisation Address (Line 1, Line 2, Line 3, Suburb, State, Postcode) Prescribing Organisation Telephone number
Most recent dispenser	Dispensing organisation name Dispensing Organisation Address (Line 1, Line 2, Line 3, Suburb, State, Postcode) Dispensing Organisation Telephone number
Medicine name and strength	Medicine name Medicine strength
Date prescribed	Date prescribed

Date dispensed	Date dispensed
Number of repeats available	Remaining number of repeats
Privacy notice	The privacy notice relating to the collection of personal information by the Australian Government to support the assessment and administration of payments and services.

8.2.3 Notification of Electronic Prescription

Where notification of an electronic prescription is transmitted electronically to the Subject of Care (for example, by email or SMS), the following data elements should be provided:

Logical Data Description	Data Element
Uniform Resource Identifier (URI)	A URI is a string of characters which is used to identify a resource on a computer network. A URI may be a name by itself (URN) or a resource name with a method of getting to it (URL). URI's provide a standardised syntax used by developers to identify a resource. For electronic prescriptions, a URI should follow the format ausrx://<Open Prescription Delivery Service Abbreviation>/<Delivery Service Identifier> (Note: ausrx is yet to be confirmed as an available prefix.)

8.2.4 Evidence of Electronic Prescription

The electronic evidence of prescription will contain the following data elements:

Logical Data Description	**Data Elements**
Barcode/QR code	A barcode or QR code accompanied by the alphanumeric representation
Barcode/QR code number (DSPID)	DSPID
Subject of Care Initials	Initials
Medicine name and strength	Medicine name Medicine strength
Privacy notice	A link to the privacy notice relating to the collection of personal information by the Australian Government to support the assessment and administration of payments and services.

8.3 Active Script List Data Elements

8.3.1 Subject of Care details

Logical Data Description	**Data Elements**
Individual Healthcare Identifier (IHI) number	String

Name of the Subject of Care	Name title, Given Name, Family Name
Date of Birth	SOC's date of birth
Gender	SOC's Gender
Medicare card number and IRN (if available)	SOC's Medicare number SOC's Medicare number IRN
DVA number (if available)	SOC's DVA number
Residential address (optional)	Address (Line 1, Line 2, Line 3, Suburb, State, Postcode)

8.3.2 Carer / Agent details

Logical Data Description	**Data Elements**
Name of the Carer	Given Name, Family Name
Relationship	Carer relationship to SOC e.g. guardian
Residential address (optional)	Address (Line 1, Line 2, Line 3, Suburb, State, Postcode)

8.3.3 Prescription token details

Logical Data Description	**Data Elements**
Medicine name and strength	Medicine name Medicine strength
Date prescribed	Date prescribed
Number of repeats available	Maximum number of repeats
Token	DSPID
Indication that the token is not available (if applicable – for paper prescriptions)	Boolean
Name of Prescriber (optional)	Given Name, Family Name
Name of the prescriber organisation (optional)	Prescribing Organisation Name
Contact Details of the prescriber/organisation (optional)	Prescribing Organisation Address (Line 1, Line 2, Line 3, Suburb, State, Postcode) Prescribing Organisation Telephone number

Acronyms

Acronym	Description
ABN	Australian Business Number
AHPRA	Australian Health Practitioner Regulation Agency
AMT	Australian Medicines Terminology
API	Application Programming Interface
APP	Australian Privacy Principles
ASL	Active Script List
ASLR	Active Script List Registry
ATC	Anatomical Therapeutic Classification
CIS	Clinical Information System
DSPID	Delivery Service Prescription Identifier
EDW	Enterprise Data Warehouse
EP	Electronic Prescription
EPWG	Electronic Prescribing Working Group
ETP	Electronic Transfer of Prescriptions
e-Prescribing	electronic prescribing
e-Prescription	electronic prescription
HI Service	Healthcare Identifiers Service operated by Services Australia
HPI-I	Healthcare Provider Identifier - Individual
HPI-O	Healthcare Provider Identifier - Organisation
IHI	Individual Healthcare Identifier
NIMC	National Inpatient Medication Chart
NRMC	National Residential Medication Chart
PBS	Pharmaceutical Benefits Scheme
PBS HMC	Pharmaceutical Benefit Scheme (PBS) Medication Chart for Public and Private Hospitals
PDS	Prescription Delivery Service
PES	Prescription Exchange Service
RPBS	Repatriation Pharmaceutical Benefits Scheme
SoC	Subject of Care (patient or consumer)
S100	Section 100 – highly specialised drug as per the Highly Specialised Drugs (HSD) Program
TWG	e-Prescriptions Technical Working Group

Glossary

Term	Meaning
Australian Medicines Terminology	The terminology within SNOMED CT-AU that is the national, standards-based approach to the identification and naming of medicines in clinical systems for Australia.
API Gateway	Programming that sits in front of a set of disparate application programming interfaces (APIs) and acts as a single point of entry for subscribing software systems.
Conformance	A measurement (by testing) of the adherence of an implementation to a specification or standard.
Electronic prescribing (e-Prescribing)	The process by which a prescription is electronically generated by a prescriber, authenticated with an electronic signature, securely transmitted to a prescription delivery service for dispensing and supply, downloaded by a supplier, seamlessly integrated into the dispensing software and, in the case of Australian government subsidised prescriptions, available to be electronically sent to the Services Australia (formerly the Department of Human Services - DHS) for claiming purposes. Notes: 1. This definition does not preclude the use of paper processes to support electronic prescribing activity. 2. Repeat records that are uploaded to a prescription delivery service by a supplier are not electronic authorisations, unless the original prescription was generated by a prescriber as an electronic prescription.
Electronic prescription (e-Prescription)	An electronic clinical document that contains all information relating to an order to supply medicine to an individual and is a legally dispensable instruction. An electronic prescription is generated electronically by an authorised prescriber, authenticated, securely transmitted (either directly or indirectly) for dispensing and supply, integrated into the pharmacy dispensing software and, in the case of Pharmaceutical Benefits Scheme (PBS) prescriptions, available to be sent electronically to Services Australia (formerly the Department of Human Services - DHS) for claiming purposes. Note: This definition does not preclude the use of other processes or artefacts to support e-Prescribing.
Electronic transfer of prescription (ETP)	The current process whereby prescribing systems pass data about a prescription to a Prescription Exchange Service (PES), which is available for download by dispensing systems in support of dispensing a paper prescription. This process provides clinical safety and time saving benefits.

Evidence of Prescription	The prescriber has the capability of offering the Subject of Care or their agent evidence of the electronic prescription. It is important that Evidence of Prescription only contains information that is helpful to the Subject of Care and would provide an authorized dispenser sufficient information to contact the prescriber in the case that the legal electronic prescription cannot be retrieved. The Evidence of Prescription may include a token that supports retrieval of the electronic prescription using a barcode/QR code scanner (or similar).
Medicine record	The record, made by an authorized prescriber in a prescriber system or on a medication chart, detailing what medicine(s) the Subject of Care is, or should be, supplied with.
Paper prescription	The current prescription utilised in Australia. A paper prescription may or may not contain an ETP barcode/QR code. A paper prescription constitutes the legal artefact.
Participating system	A computer system that participates in electronic prescribing. Participating systems include any system which generates an electronic prescription, retrieves and dispenses from an electronic prescription, facilitates the transfer of an electronic prescription or manages an electronic prescription.
Prescription	A legally dispensable instruction from an authorised prescriber to supply medicine(s).
Token	A piece of information which is used to identify and access an electronic prescription or repeat. The information may be provided to and carried by the Subject of Care in physical form (a piece of paper containing a barcode or QR code) or information (e.g. barcode/QR code, medicine name, medicine strength, number of repeats) sent electronically to a mobile device. The barcode or QR code supports scanning.

References

1. AHMAC Electronic Prescribing Working Group Meeting Papers for 24 July 2018.

2. AHMAC Electronic Prescribing Working Group Meeting Papers for 13 December 2018.

3. ATS 4888.1 – 2013 available at https://infostore.saiglobal.com/en-au/Standards/ATS-4888-1-2013-119976_SAIG_AS_AS_251436/

Appendix A – Use Cases

This appendix contains use cases supporting the electronic prescription contexts described in Section 7. Use cases are intended for illustrative purposes only, and do not encompass all edge cases. The use cases provided are listed in the following table.

Prescriber Use Cases	Dispenser Use Cases	Consumer Use Cases
UC4.1.8 – Prescribe	UC4.5.8 – Dispense	UC4.3.8 – Normal flow
UC4.1.9.1 – Create electronic prescription token	D2.6.1 – Dispense prescription owing	UC4.3.9 – Shared access
UC4.1.9.2 – Add electronic prescription to Active Script List	UC4.5.10.1 – Electronic prescription paper form	
UC4.1.9.3 – Create paper prescription	UC4.5.10.2 – Active Script List	
UC4.1.10.3 – Cancel prescription delivery option	UC4.5.10.3 – Electronic prescription not available at request	
UC4.1.10.4 – Consult with agent	UC4.5.10.4 – Prescription dispense history	
UC4.1.10.5 – Electronic prescription fail safe	UC4.5.10.8 – Supply unavailable	
UC4.1.9.4 – Prescribe medicines on approved chart	UC4.5.10.9 – Deny supply	
UC4.1.10.6 – Prescribe with Local Chart	UC4.5.10.10 – Invalid electronic prescription transaction (rollback)	
UC4.1.9.5 – Electronic prescriptions on discharge	UC4.5.10.11 – Repeats	
	UC4.5.10.12 – Supply declined	
	UC4.5.10.13 – Prescription delivery option	
	UC4.6.9.4 – Resolve prescription owing	
	UC4.6.9.1 – Cancel dispense	
	UC4.6.9.2 – Amend dispense	
	UC4.5.10.7 – Dispense prescription from Med chart	
	UC4.5.11.14 – Disable Prescription	
	UC4.5.11.15 – Reenable Prescription	

Prescriber Use Cases

UC4.1.8 – Prescribe (electronic prescription) | UC4.1.10.5 – Electronic prescription fail safe | UC4.1.10.4 – Consult with agent

Where a prescriber prescribes medicine, the prescribing software is able to generate an electronic prescription. This process would be used for:

- SoC/Carers requiring prescription medicine where they have opted for an electronic prescription
- Prescribing prescription medicine in an electronic format

Process Overview

The SoC/Carer presents to an authorised prescriber. The prescriber determines that prescription medicine is required. The SoC/Carer indicates their preference for an electronic prescription. The prescriber either:

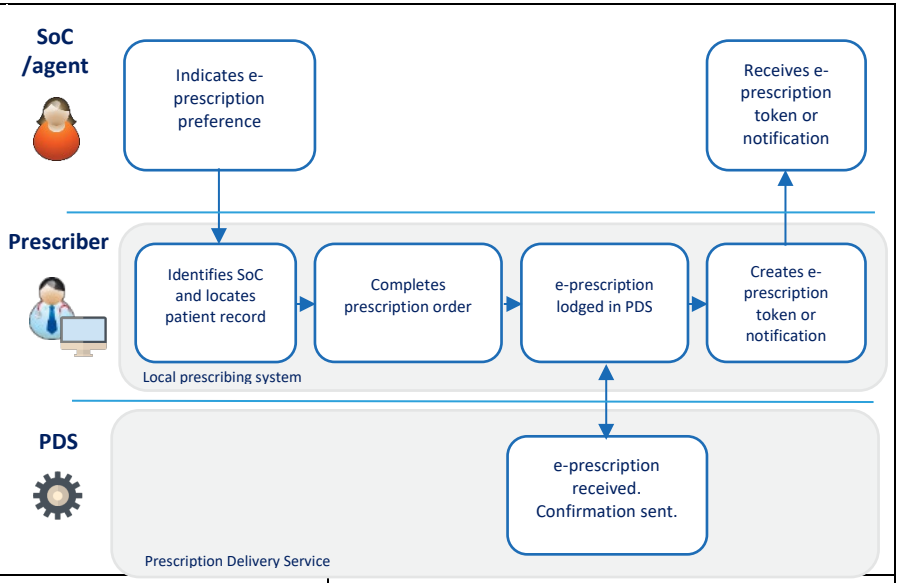
- generates an electronic prescription token for the SoC
- Adds the electronic prescription to the SoC's Active Script List

Participants

Prescriber, SoC / agent

Systems

Prescribing software, PDS



Operational Policy

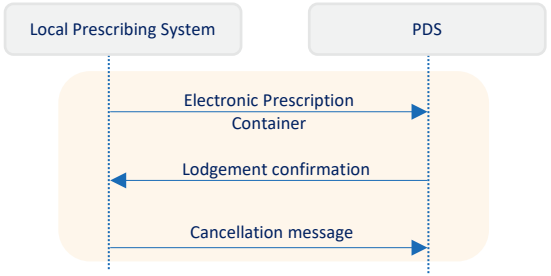
SoC/Carer can exercise choice between receiving a paper prescription or an electronic prescription.

SoC/Carer consent is required to an electronic prescription token or notification.

A prescriber may make an amendment to an electronic prescription prior to first dispense and *must* have confidence the SoC/Carer/Agent has the correct prescription, token/notification, and any accompanying information.

If a SoC/Carer reports a lost token, the prescriber may re-issue the token without cancelling the original prescription.

System Interaction



Authorised token

Tokens are generated as per conformance specifications. The token includes the unique ID for dispensing systems to access the electronic prescription.

Possibility of system exception

A system exception is possible, preventing a prescriber from confidently passing an electronic prescription token or notification to their SoC/agent. In these circumstances, the prescriber will revert to the paper prescription process.

UC4.1.9.1 – Create electronic prescription token | UC4.1.10.3 – Cancel prescription delivery option

Where a SoC/Carer has indicated their preference for an electronic prescription, the prescriber will have the ability to pass the electronic prescription token to them. This process would be used for:

- SoC/Carer requiring prescription medicine where they have opted for an electronic prescription
- Prescribing prescription medicine in an electronic format

Process Overview

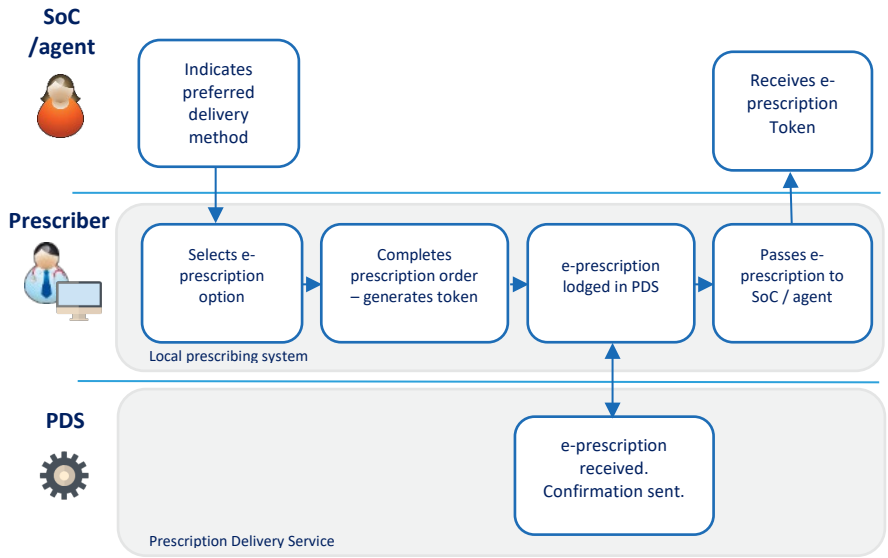
During the prescribing process, the prescriber selects the electronic prescription option within their local prescribing software. The prescribing system calls the ASLR and establishes that the SoC does not have an ASL. The completed electronic prescription is sent to a PDS. An electronic prescription notification is sent to the SoC/Carer.

Participants

Prescriber, SoC/Carer

Systems

Prescribing software, PDS



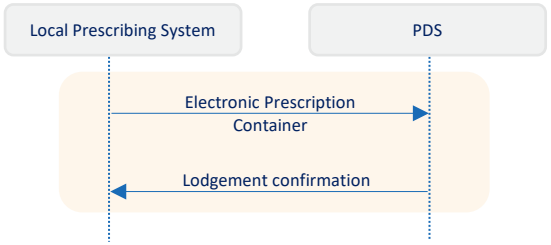
Operational Policy

SoC/Carer can exercise choice of delivery method per the options made available by the prescriber.

The prescriber must nominate at least one (1) option to allow SoC/Carer access to the electronic prescription.

During consultation, a prescriber may choose to cancel the electronic prescription in favour of a paper prescription.

System Interaction



Authorised token

Tokens are provided to the Subject of Care via conformant systems.

Token delivery service methods may include SMS, MMS, email, print, desktop capture, or other.

Possibility of Exception

The prescriber may cancel the prescription request at any point in the process.

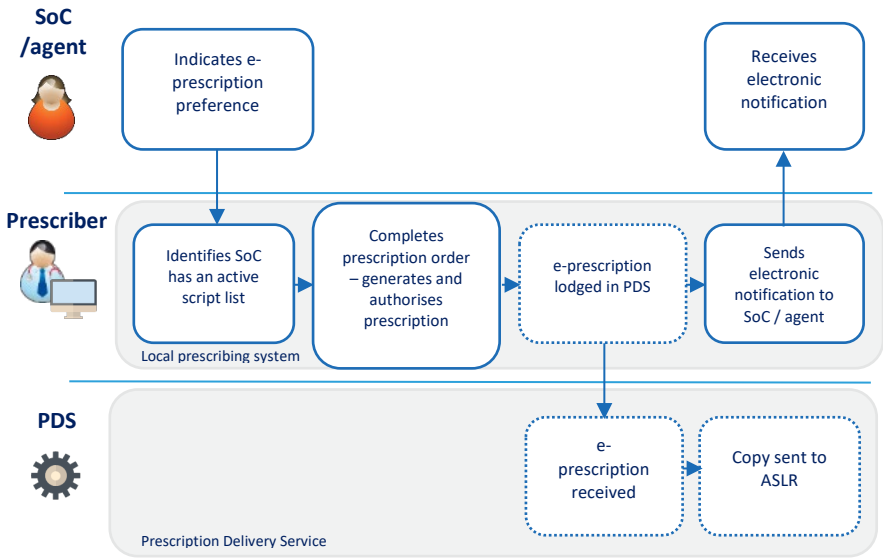
UC4.1.9.2 – Add electronic prescription to Active Script List | UC4.1.10.3 – Cancel prescription delivery option

Where a SoC/agent has an Active Script List, the prescriber will have the ability to add the electronic prescription to that list. This process would be used for:

- SoC/Carer requiring prescription medicine who have registered for an Active Script List
- Prescribing prescription medicine in an electronic format

Process Overview

During the prescribing process, the prescriber selects the electronic prescription option within their local prescribing software. The prescribing system calls the ASLR and establishes that the SoC has an ASL. The completed electronic prescription is sent to a PDS. The PDS sends the electronic prescription to the ASLR. An electronic prescription notification is sent to the SoC/Carer.



Participants

Prescriber, SoC/Carer

Systems

Prescribing software, PDS

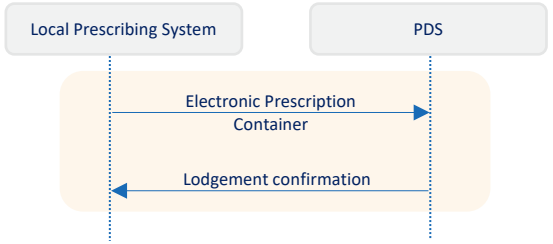
Operational Policy.

The prescriber should ensure the SoC/Carer has received the electronic prescription notification during the consultation.

The SoC/Carer can choose to receive a paper prescription if they do not want the electronic prescription to be added to their Active Script List.

During consultation, a prescriber may choose to cancel the electronic prescription in favour of a paper prescription.

System Interaction



Notifications

Electronic prescription notifications are provided to the Subject of Care through their preferred electronic delivery channel, as recorded in the prescribing system.

Possibility of Exception

The prescriber may cancel the electronic prescription request at any point in the process.

UC4.1.9.3 – Paper prescription (current practice)

Where a prescriber prescribes medicine, the prescribing software is able to generate a paper prescription to pass to the SoC/Carer/Agent for filling. This process would be used for:

- SoCs/Carers requiring prescription medicine where they have opted for a paper prescription.
- Prescribing prescription medicine in a paper format.

Process Overview

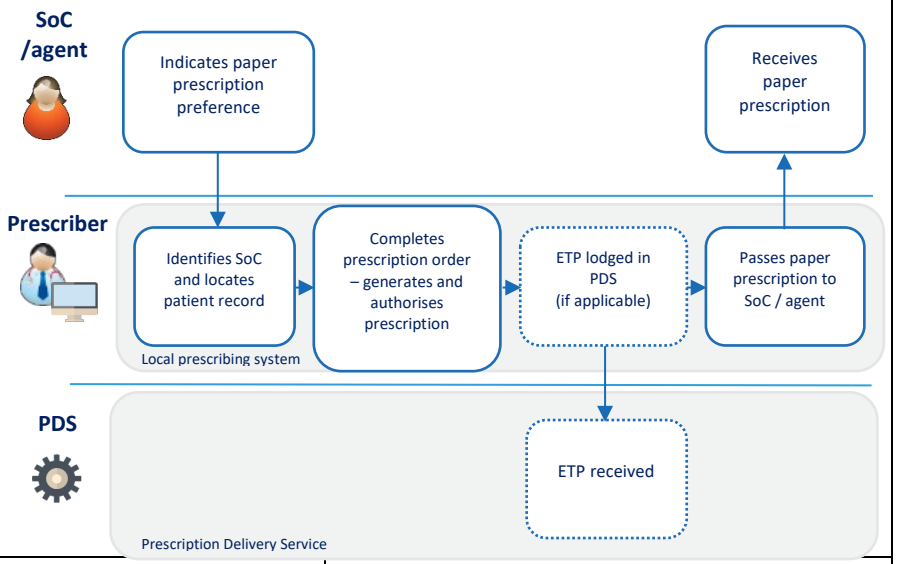
The SoC/Carer has presented to an authorised prescriber. Following assessment, the prescriber has determined that prescription medicine is required. The SoC/Carer indicates their preference for a paper prescription. The prescriber generates the prescription which is passed to the SoC/Carer.

Participants

Prescriber, SoC / agent

Systems

Prescribing software, PDS

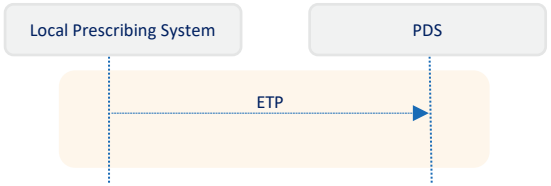


Operational Policy

SoC/Carer can exercise choice between receiving a paper prescription or an electronic prescription.

Current policy and process applies to paper prescriptions with or without ETP barcodes/QR codes.

System Interaction



A prescriber may choose to generate a paper prescription which contains an ETP barcode/QR code per existing processes.

Authorised token

Paper prescriptions do not contain an electronic prescription token.

An ETP record is *not* an electronic prescription.

Possibility of exception

A prescriber may cancel the prescription order within prescribing software, simultaneously destroying the paper prescription.

UC4.1.9.4 – Prescribe medicines on approved chart | UC4.1.10.6 – Prescribe with local chart

In this process, a SoC has a corresponding *electronic* medication chart (compliant with PBS HMC, or NRMC). The SoC is prescribed medicines via their compliant electronic medication chart. This process would be used for:

- SoCs requiring prescription medicines; and
- Prescribing medicine on a compliant medication chart.

Process Overview

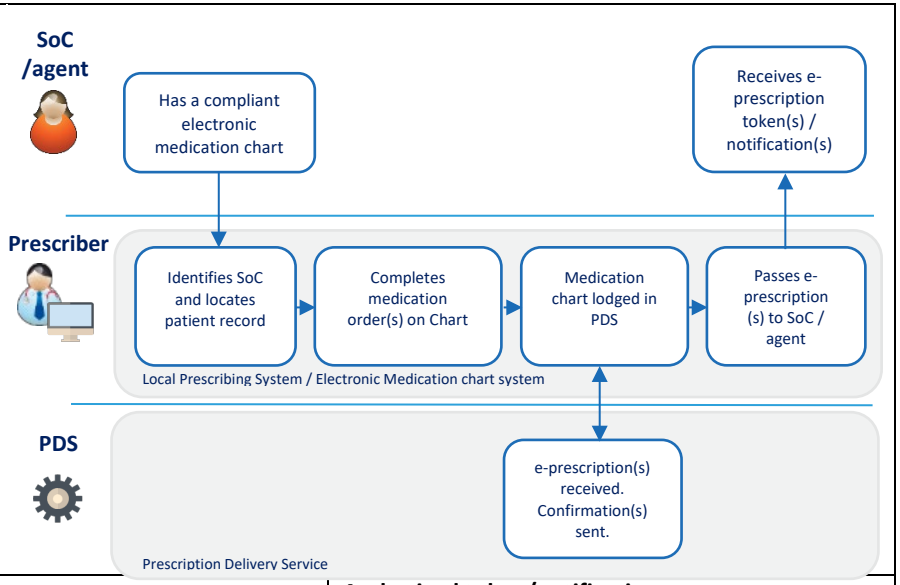
The SoC is assigned a compliant electronic medication chart. The prescriber completes a prescription order onto the electronic medication chart. The electronic medication chart passes through a PDS to the regular dispenser.

Participants

Prescriber, SoC / agent

Systems

Prescribing software/electronic medication chart, PDS



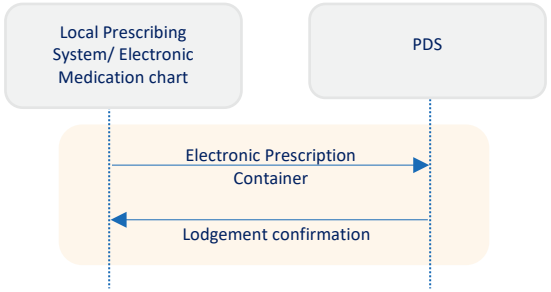
An electronic prescription may be generated exclusive of a compliant medication chart – refer to UC4.1.8. The RACF may provide linking functionality for externally generated electronic prescriptions.

A compliant electronic medication management system (NRMC / PBS HMC) may generate electronic prescriptions if it communicates electronic prescription information via a conformant PDS.

Operational Policy

A SoC/Carer may exercise their choice of dispenser (as required).

System Interaction



Authorised token/notification

Where a conformant Direct PDS is used, tokens or notifications may not be required.

Authorised agent

A residential care facility may act as a SoC's agent when SoC consent has been granted.

Possibility of system exception

A system exception is possible, preventing a prescriber from confidently generating an electronic prescription. In these circumstances, the prescriber will revert to the paper prescription process.

UC4.1.9.5 – Electronic prescriptions on discharge

In this process, a SoC is being discharged from hospital. The SoC has an electronic medication chart from which a prescriber may generate the SoC's discharge medication prescriptions. This process would be used for:

- SoCs being discharged from hospital requiring prescription medicines; and
- Prescribers discharging SoCs from an inpatient hospital setting.

Process Overview

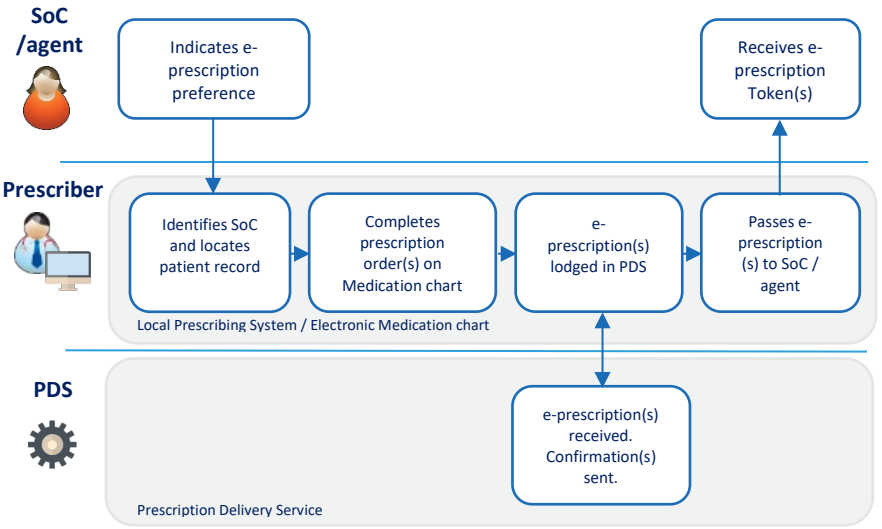
During consultation, the SoC/Carer indicates their preference to receive an electronic prescription. The prescriber then generates an electronic prescription from the hospital electronic medication chart. The electronic prescription record is sent to the PDS. Upon discharge, the SoC/Carer/Agent has the electronic prescription token or notifications in their possession.

Participants

Prescriber, SoC/Carer/Agent

Systems

Prescribing software, Medication chart, PDS

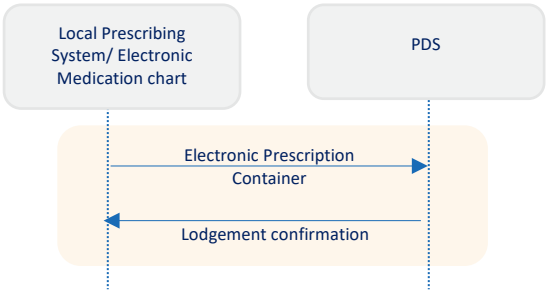


Where paper medication charts are in use, a prescriber may choose to follow UC4.1.8.

Operational Policy

An SoC may exercise their choice of dispenser.

System Interaction



Authorised token/notification

Where a conformant Direct PDS is used, tokens or notifications may not be required.

Authorised agent

A hospital pharmacist may act as a SoC's agent when SoC consent has been granted.

Possibility of system exception

A system exception is possible, preventing a prescriber from confidently passing an electronic prescription token to their SoC/Carer/Agent. In these circumstances, the prescriber will revert to the paper prescription process.

Dispenser Use Cases

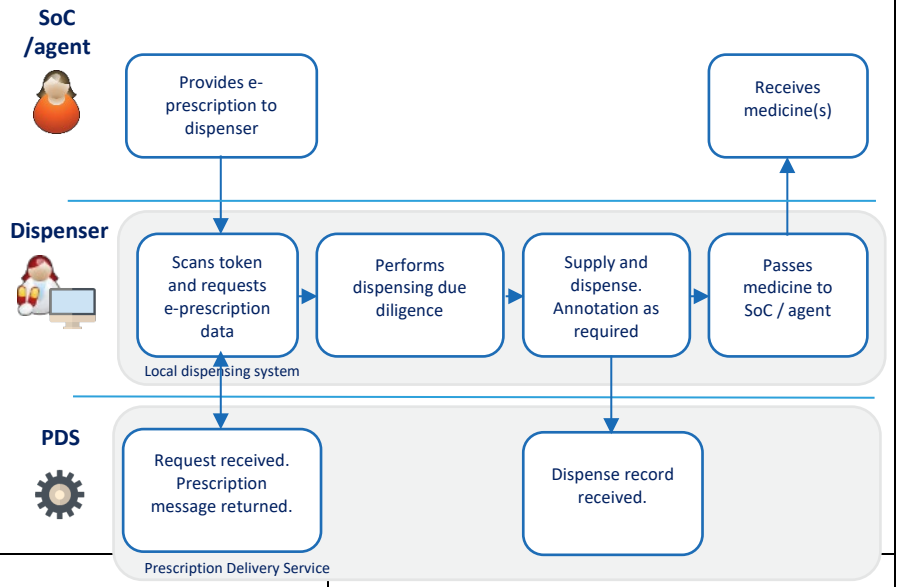
UC4.5.8 – Dispense | UC4.5.10.1 – Electronic prescription paper form | UC4.5.10.4 – Prescription dispense history | UC4.5.10.13 – Prescription delivery option | UC4.6.9.2 – Amend dispense

An electronic prescription is able to be dispensed at a dispensary of SoC's/Carer's choice. This process would be used for:

- SoCs/Carers requesting supply and dispense of one or more prescription items where they may exercise choice of dispenser; and
- Dispensers supplying and dispensing from an electronic prescription.

Process Overview

The SoC/Carer/Agent communicates an electronic prescription(s) to the dispenser for supply. The dispenser scans the electronic prescription token, retrieving the electronic prescription data from the PDS. The dispenser consults with the SoC/Carer/Agent per standard practice and performs supply and dispense. The SoC/Carer/Agent is provided with required medicine(s).



Participants

Dispenser, SoC/Carer/Agent

Systems

Dispensing software, PDS

Operational Policy

SoC/Carer/Agent can exercise choice of dispensary.

Repeat electronic prescription information will be provided to the SoC/Carer in the form the electronic prescription was presented.

Dispensers shall review previous dispense history including annotations by retrieving prescription data from the PDS.

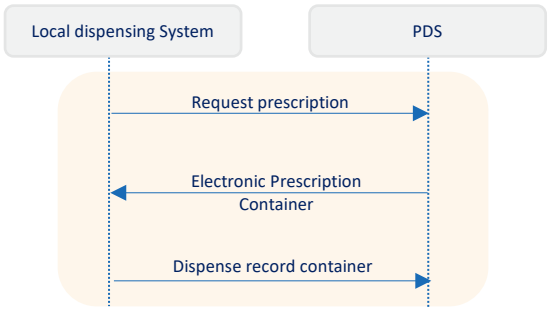
A paper prescription may not be converted to an electronic prescription repeat upon dispense.

A dispenser may review the dispense record and make necessary changes to correct the record.

Prescription Change

Annotations may be made to the electronic prescription per relevant policy and regulation.

System Interaction



Possibility of system exception

The dispensing system must assure service to enable the production of tokens for repeat medicines for the SoC with the PDS unavailable. The dispensing system should continue to retry updating the electronic prescription message until successful.

Authorised token

Tokens are able to be entered into the dispensing software for electronic prescription data retrieval. New tokens shall be generated and provided to the SoC/agent for repeat prescription items with a one (1) token to one (1) prescription item relationship.

Evidence of Prescription has no legal standing; the electronically retrieved information from the PDS is the legal instrument.

A compliant electronic medication chart received via a conformant PDS may act as an electronic prescription.

Possibility of system exception

A system exception is possible, preventing a dispenser from accessing the electronic prescription data. In these circumstances, the dispenser would follow an UC4.5.10.3 process.

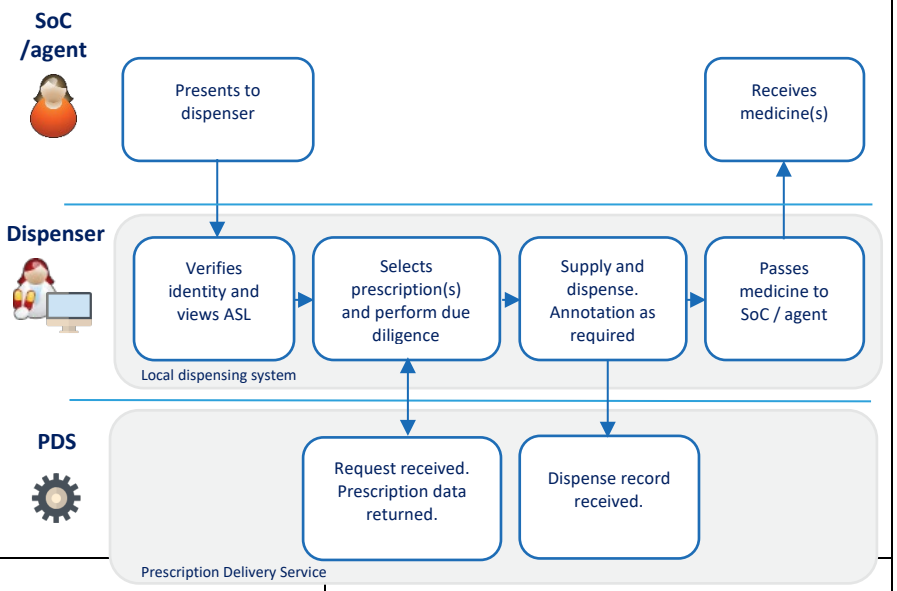
UC4.5.8 – Dispense | UC4.5.10.2 – Active Script List

An electronic prescription is able to be dispensed at a dispensary of SoC's/agent's choice. This process would be used for:

- SoCs / agents with an Active Script List requesting supply and dispense of one or more prescription items where they may exercise choice of dispenser; and
- Dispensers supplying and dispensing from an electronic prescription.

Process Overview

The SoC/agent is identified by the dispenser and grants the dispenser with access to their Active Script List. The dispenser views the Active Script List and selects the prescriptions to be dispensed, retrieving the electronic prescription data from the PDS. The dispenser consults with the SoC/agent per standard practice and performs supply and dispense. The SoC/agent is provided with required medicine(s).



Participants

Dispenser, SoC / agent

Systems

Dispensing software, PDS

Operational Policy

SoC/agent can exercise choice of dispensary.

Dispensers shall review previous dispense history including annotations by retrieving prescription data from the PDS.

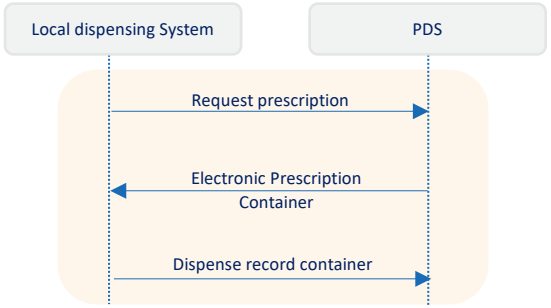
A paper prescription may not be converted to an electronic prescription repeat upon dispense.

A dispenser may review the dispense record and make necessary changes to correct the record.

Prescription Change

Annotations may be made to the electronic prescription per relevant policy and regulation.

System Interaction



Electronic dispense record notifications may be provided to the Subject of Care through their preferred electronic delivery channel. Prescription Tokens and Evidence of Prescription will only be provided if there is a repeat available.

Possibility of system exception

A system exception is possible, preventing a dispenser from accessing the electronic prescription data. In these circumstances, the dispenser would follow an UC4.5.10.3 process.

D2.6.1 – Dispense prescription owing| UC4.5.10.3 – Electronic prescription not available at request

The dispenser may supply the medicines in accordance with regulatory service requirements where a prescription is not present. This scenario may be invoked where a request can be met in consultation with a prescriber.

This process would be used for:

- SoCs / agents requesting supply of one or more prescription medicines without presenting a prescription; and
- Dispensers supplying where a prescription is not present.

Process Overview

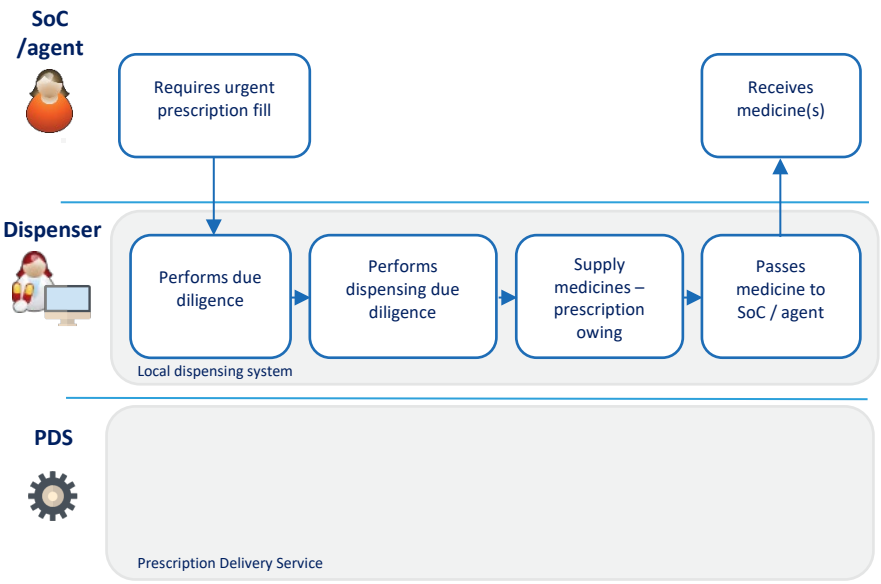
The SoC/agent presents at a dispenser requiring medicine without a prescription available for dispensing. The dispenser appraises the request, completing the required due diligence (including contacting the nominated prescriber). The dispenser will then create a dispense record and make record annotations as necessary. The dispense record will be stored in a prescription owing state until the prescription is provided.

Participants

Dispenser, SoC / agent

Systems

Dispensing software



Operational Policy

Dispenser due diligence is required to confirm SoC/agent prescription requirements and legitimacy.

Supply will be recorded in the local dispensing system per local procedure.

Major deviations should not be supported through this mechanism, where a new prescription is required.

System Interaction

A dispenser may interact with their local dispensing system only (e.g. to record a supply event). Without a prescription, the dispenser will not interact with a PDS.

Possible system exception

An UC4.5.10.3 process may be invoked due to a system exception where:

- Prescription data is not available from the PDS
- Prescription not found or returned by the PDS

Possibility of exception

A dispenser may dispense without verbal authorisation from a prescriber under emergency supply provisions. An emergency supply is not treated as a PBS prescription.

UC4.5.10.7– Dispense prescription from Med chart

This process would be used for:

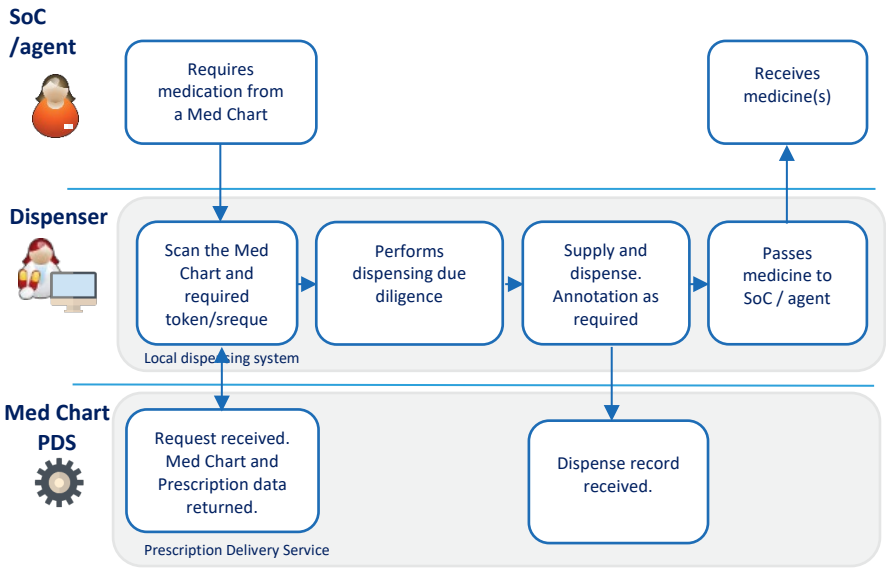
- Dispensers supplying medication from an electronic prescription held in a Medication Chart using an Open PDS.

Process Overview.

The dispenser will scan the Med Chart then scan the token/s on the Med Chart for required medication. A dispense record and annotations as necessary are created. Tokens contained within a Med Chart will persist for the life of the chart – therefore there can be multiple dispense records against one token. The SoC/agent is provided with required medicine(s).

Participants
Dispenser, SoC / agent

Systems
Dispensing software, PDS

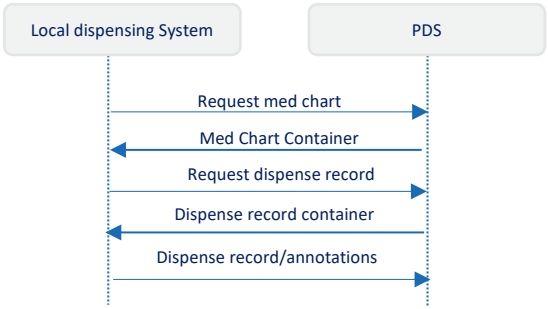


Operational Policy

Medication Charts have an end date and prescriptions within the Medication Chart may end prior to that end date.

Dispensers shall review previous dispense history including annotations by retrieving prescription data from the PDS.

System Interaction



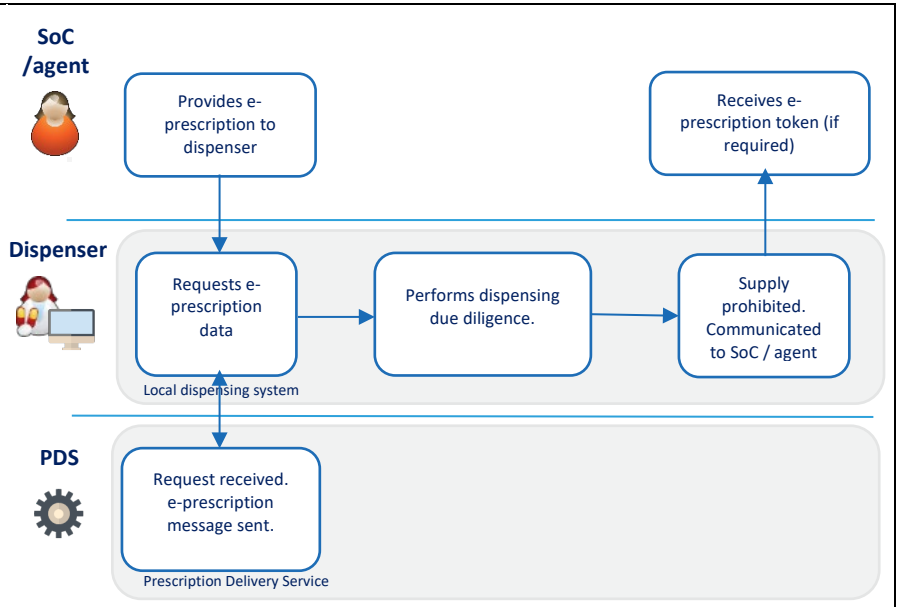
Possible system exception

- Prescription data is not available from the PDS
- Prescription not found or returned by the PDS
- Med Chart not found or returned by the PDS

UC4.5.10.8 – Supply unavailable | UC4.5.10.9 – Deny supply | UC4.6.9.1 – Cancel dispense

After retrieving the electronic prescription record from the PDS, the dispenser will determine, during due diligence, if there is to be no supply. This process would be used for electronic prescription items which have been:

- Cancelled - the prescription was cancelled after it was issued by the prescriber.
- Exhausted - The prescription is not available for further supply.
- Expired - The prescription has passed its expiry date.



Process Overview

The dispense process is followed with activity ceasing at due diligence. Supply is prohibited / denied. The SoC/agent will be informed of the outcome by the dispenser.

Participants

Dispenser, SoC / agent

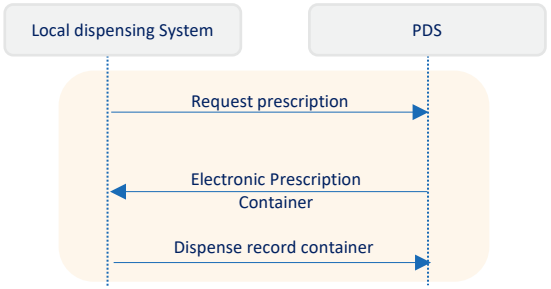
Systems

Dispensing software, PDS

Operational Policy

Medicines will not be provided to the SoC / agent where prohibited, denied or prescription has been cancelled.

System Interaction



Possibility of system exception

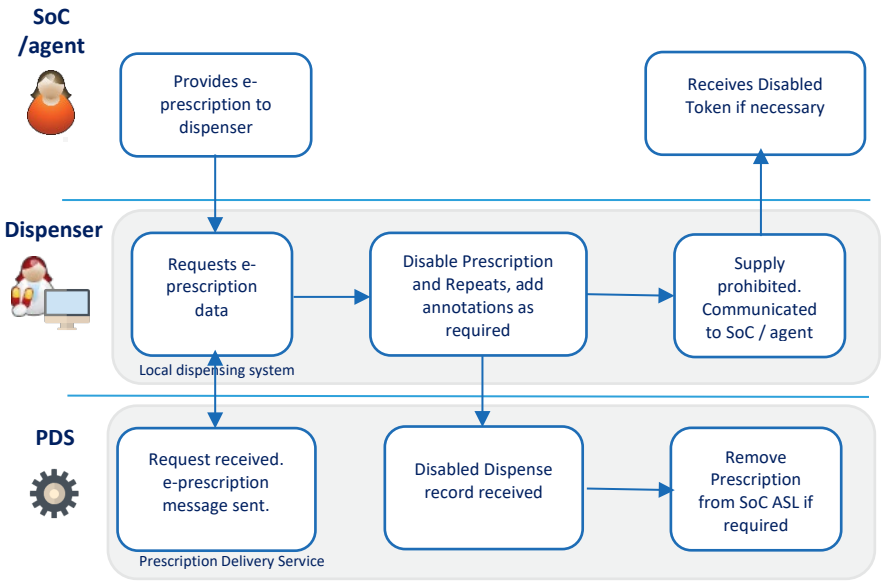
The dispensing system must assure service to enable the production of tokens (if required) for repeat items for the SoC with the PDS unavailable. The dispensing system should continue to retry updating the electronic prescription message until successful.

UC4.5.11.14 – Disable Prescription

When there are concerns regarding patient safety, fraud, or excessive supply of high-risk medication in line with legislative requirements

Process Overview

The prescription is disabled, and annotations are added as required to prevent the prescription being dispensed.



Participants

Dispenser, SoC / agent

Systems

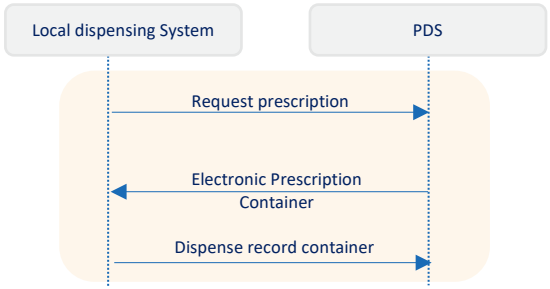
Dispensing software, PDS

Operational Policy

Medicines will not be provided to the SoC / agent where there are concerns regarding patient safety, fraud or excessive supply of high-risk medication in line with legislative requirements

Annotations may be utilised.

System Interaction



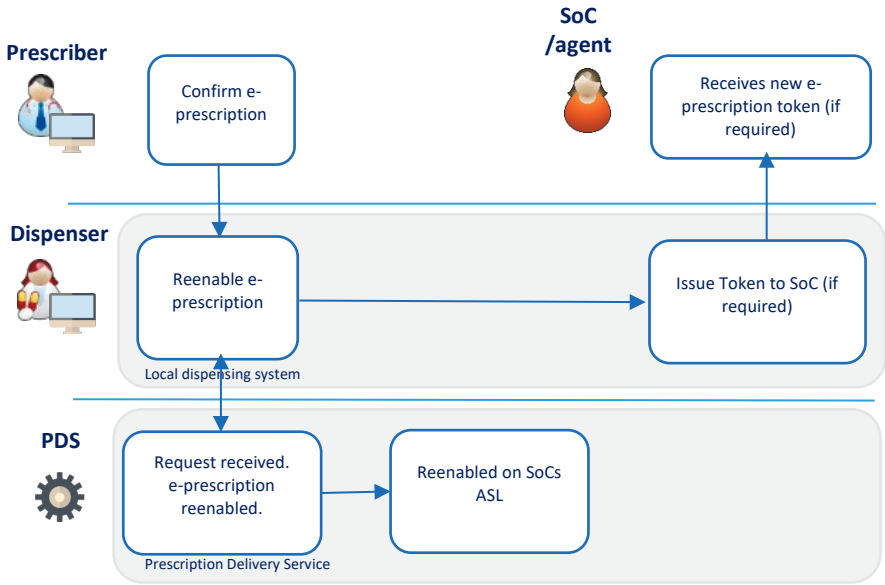
Possibility of system exception

UC4.5.11.14 – Re-enable Prescription

When concerns are resolved regarding patient safety, fraud or excessive supply of high-risk medication in line with legislative requirements such as after confirming supply with the Prescriber or disabled in error.

Process Overview

An e-prescription is reenabled after receiving confirmation from the prescriber to dispense the medication or the prescription was disabled in error. The system generates a token/ Evidence of Prescription in electronic or paper form if required for the SoC/agent.



Participants

Dispenser, SoC / agent

Systems

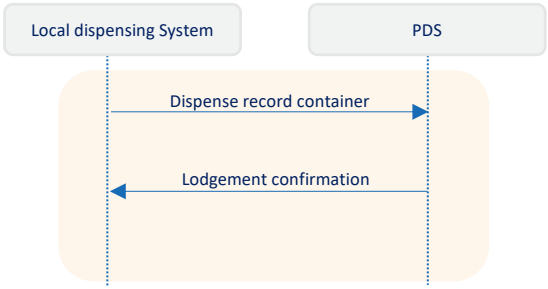
Dispensing software, PDS

Operational Policy

Medicines will not be provided to the SoC / agent where there are concerns regarding patient safety, fraud or excessive supply of high-risk medication in line with legislative requirements

Annotations may be utilised.

System Interaction



Possibility of system exception

UC4.5.10.10 - Invalid electronic prescription transaction (rollback) | UC4.5.10.12 – Supply declined

If dispensing is not progressed or abandoned, the dispenser will update the Dispensing System (i.e. roll-back dispense changes) if required or cancel the dispense transaction. This process would be used for:

- SoC/agent who does not complete their prescription fill request; and
- Dispensers when prescription dispense is not completed.

Process Overview

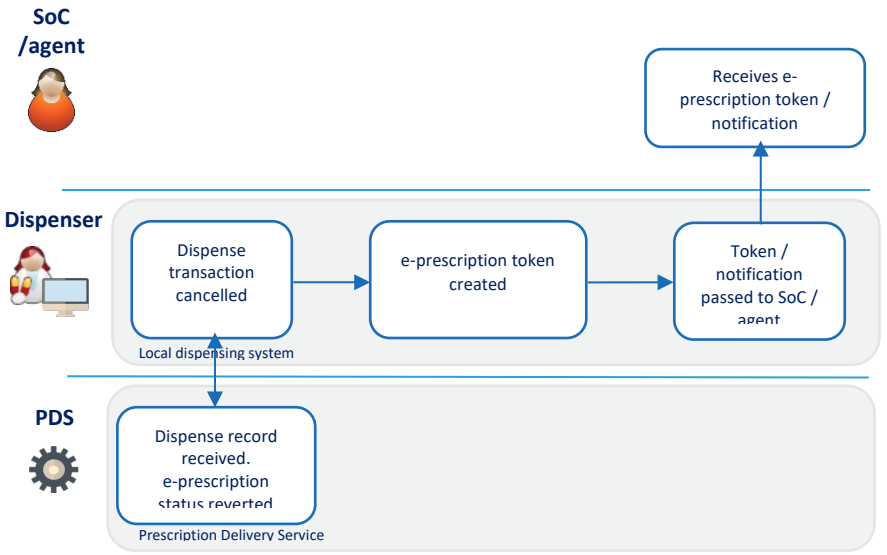
During the dispense process, a decision is made to cancel the dispense event. The dispense record will be cancelled and the electronic prescription status reverted. The system generates a token/notification and electronic prescription paper form if required for the SoC/agent.

Participants

Dispenser, SoC / agent

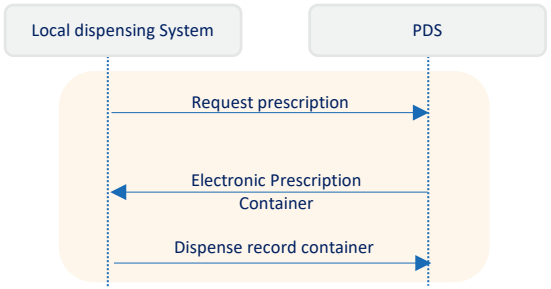
Systems

Dispensing software, PDS



Operational Policy

System Interaction



Possibility of system exception

The dispensing system must assure service to enable the production of tokens (if required) for repeat tems for the SoC with the PDS unavailable. The dispensing system should continue to retry updating the electronic prescription message until successful.

UC4.5.10.11 – Repeats

An electronic prescription may contain medicine(s) with repeats. Upon dispense, one or more prescription items may require a new token for dispense of a repeat. This process would be used for:

- A SoC/agent who is prescribed medicine(s) containing repeats; and
- Dispensers authorising prescription item repeats.

Process Overview

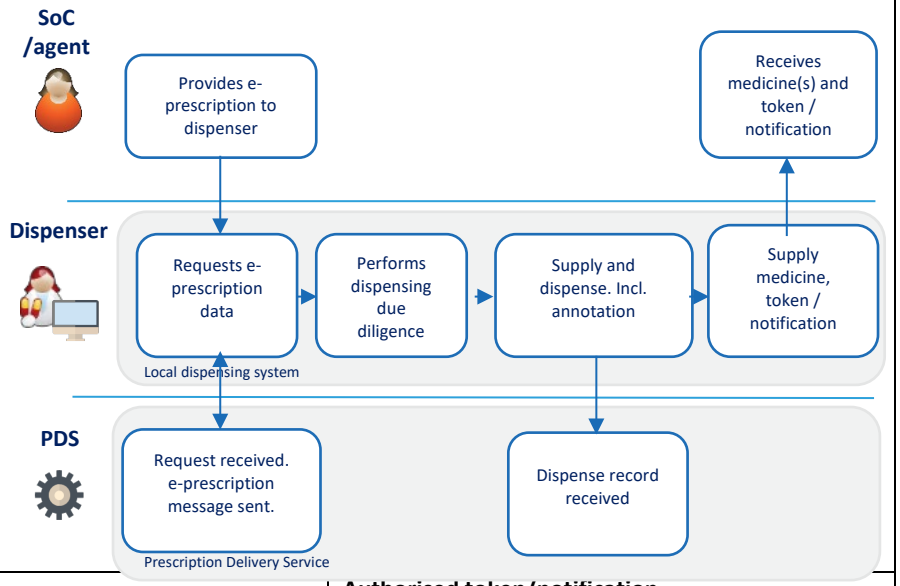
During the dispense process, the dispenser records a repeat authorisation into the dispensing system per the instructions (or amendments) of the electronic prescription. Annotations may be entered against the dispense record. The prescription item is passed to the SoC/agent along with the relevant electronic prescription token(s) or notification.

Participants

Dispenser, SoC / agent

Systems

Dispensing software, PDS



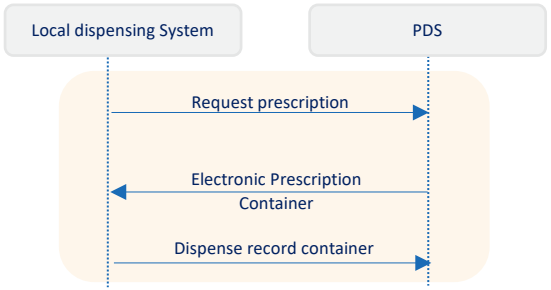
Operational Policy

Annotations may be utilised.

SoC / agent should be in possession of applicable electronic prescription token or notification following dispense.

Repeat electronic prescriptions will be provided to the SoC/agent.

System Interaction



Authorised token/notification

A token or notification will be generated corresponding to a repeat prescription item.

Possibility of system exception

As with the prescription, there may be a delay in lodgement with the delivery service. The impact of such a delay will be experienced where a subsequent repeat is to be filled within a short period of time under immediate supply necessary provisions.

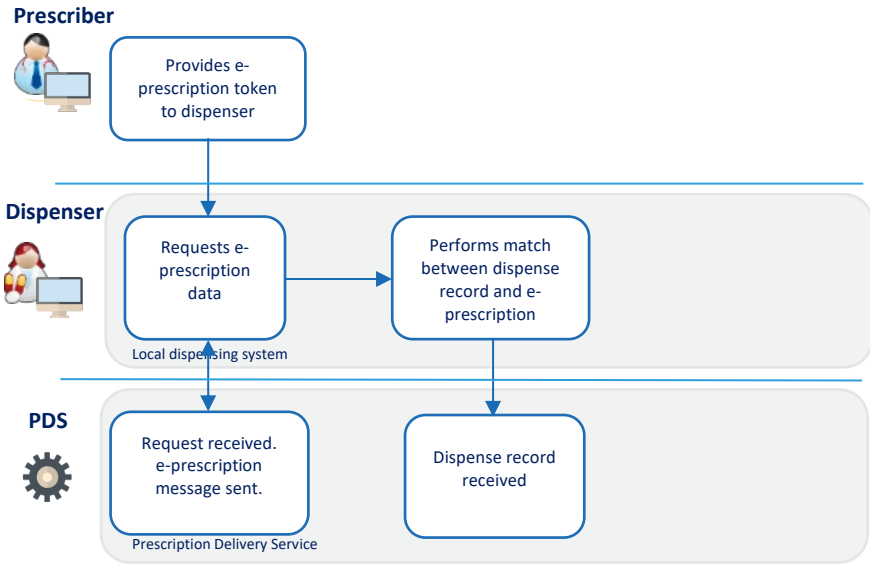
UC4.6.9.4 – Resolve prescription owing

Following supply of a prescription as an 'owing prescription' the dispenser will be provided a valid electronic prescription to reconcile against this event. This process would be used for:

- Dispensers upon receipt of an electronic prescription for a prescription owing event.

Process Overview

Following the prescription owing process, a prescriber will provide the outstanding electronic prescription to the dispenser within timeframes allowed by relevant regulation and policy. The onus is on the prescriber to ensure that the dispenser is provided with a valid prescription. The dispenser will retrieve the electronic prescription from the PDS and reconcile against the owing dispense activity. This may include any necessary annotations. The dispense will be completed and dispense record updated.



Participants

Dispenser, SoC / agent

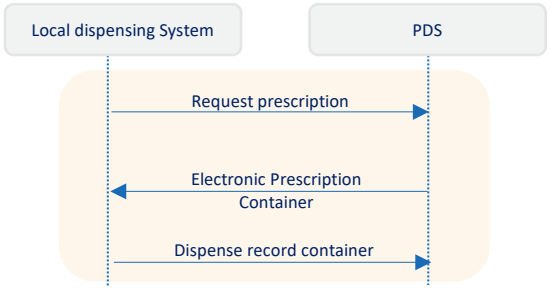
Systems

Dispensing software, PDS

Operational Policy

A dispenser may be able to reconcile an owing dispense record to an electronic prescription per local procedure.

System Interaction



Possibility of exception

In the case where the dispenser finds a significant prescription variation upon receiving the owed prescription, the dispenser will discuss with the prescriber to resolve the variation. This may result in the prescriber providing another electronic prescription. The owing should remain as 'owing' until an accurate prescription is received from the prescriber. There is no other way to reconcile an owing.

Consumer Use Cases

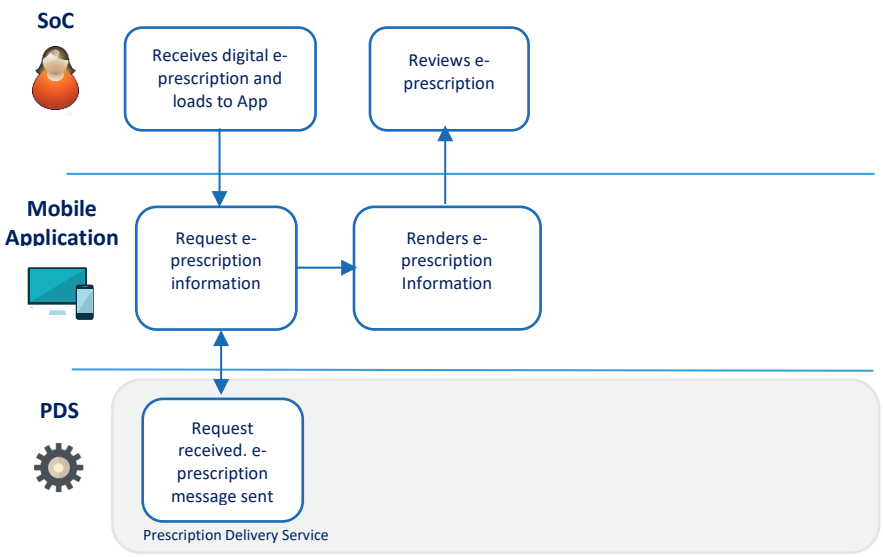
UC4.3.8 – Normal flow (mobile application)
Where a SoC has been prescribed medicine, they will have the ability to exercise their choice of dispenser. This process would be used for:

- SoCs prescribed medicines who have received an electronic prescription and choose to use a mobile application.

Process Overview
The SoC receives the digital electronic prescription notification and

- passes it to their preferred mobile application; or
- uses the mobile application to access their Active Script List.

The mobile application retrieves the electronic prescription information from the PDS via a mobile intermediary. The mobile application renders the electronic prescription information for the SoC's review.



Participants
SoC / agent

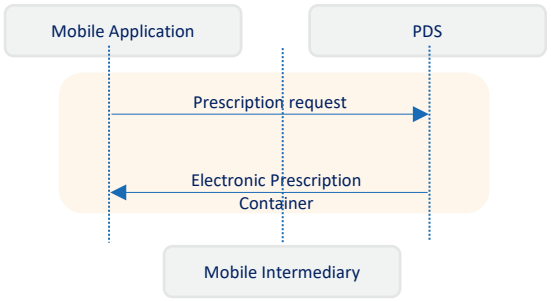
Systems
Mobile application, mobile intermediary, PDS

Operational Policy
A mobile application will support SoC choice of dispenser.

Mobile applications will support SoC consent.

Only conformant mobile applications are available for use.

System Interaction



Authorised token
Mobile applications can use tokens or Active Script Lists to retrieve electronic prescription information.

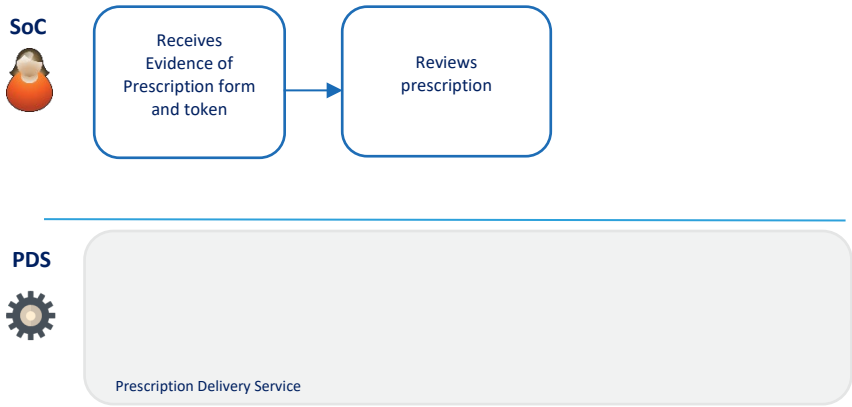
A SoC may choose to store tokens on their personal device independent of a mobile application.

Possibility of system exception
A system exception is possible, preventing a mobile application from retrieving additional e-prescription information from the PDS. The token shall always be available to be rendered and scanned. Additional functionality will be managed by mobile application operators.

UC4.3.8 – Normal flow (Paper Evidence of Prescription and Token)

Where a SoC has been prescribed medicine and chosen to receive a paper-based Evidence of Prescription form. The SoC will have the ability to exercise their choice of dispenser. This process would be used for:

- SoCs prescribed medicines who have received a paper-based Evidence of Prescription form.



Process Overview

The SoC receives the paper-based Evidence of Prescription form with token. The SoC is able to review the Evidence of Prescription form containing relevant medicines information. The SoC presents the paper-based Evidence of Prescription form to their dispenser of choice.

Participants	**Systems**
SoC / agent	N/A

Operational Policy	**System Interaction**	**Authorised token**
A SoC may interact with a paper-based Evidence of Prescription form in any way.	A paper-based Evidence of Prescription form does not interact with any systems when in the possession of the SoC. The SoC may elect to load their electronic prescription to a conformant mobile application using the token.	Tokens printed on paper are able to be converted to digital tokens by using a mobile application. A token may be entered into a mobile application for store and view.

UC4.3.9 – Shared access

Where a SoC has been prescribed medicine, they will have the ability to share their electronic prescription with an agent of their choice to retrieve the electronic prescription dispense. This process would be used for:

- SoCs prescribed medicines who wish to utilise an agent.

Process Overview

The SoC receives an electronic prescription. The SoC accepts the risk of sharing their electronic prescription. The SoC identifies the recipient / agent and method of share. The SoC finalises the share by communicating their electronic prescription to their agent.

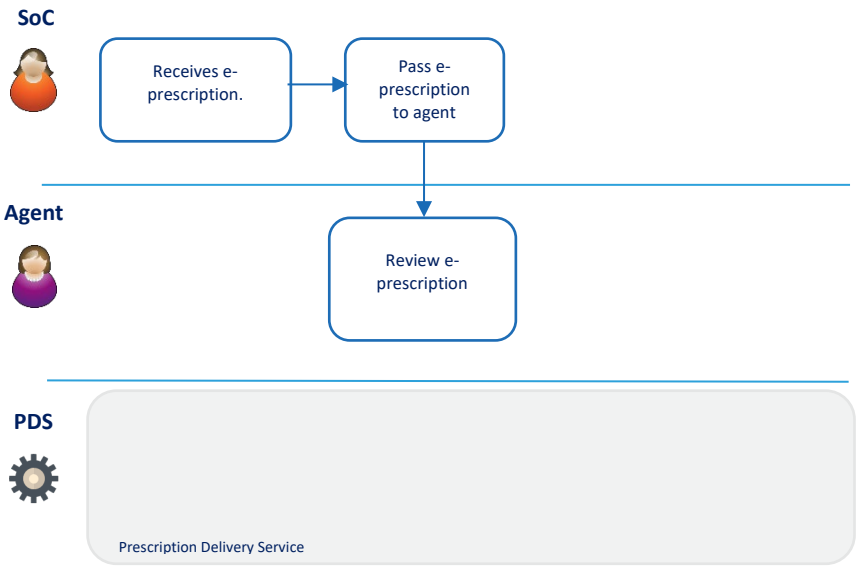
Where a mobile application is used, the agent will enter the Normal Flow (mobile application) process.

Participants

SoC, agent

Systems

Mobile application, mobile intermediary, PDS, Active Script List Registry



Operational Policy

The electronic prescription is transferable between parties; the method of transfer is determined by the SoC and their mobile application if applicable.

Mobile applications will support SoC consent to share an electronic prescription token or access their Active Script List.

System Interaction

A SoC may elect to share prescription access via conformant mobile applications.

Authorised token

Tokens are able to be communicated between parties.

Possibility of system exception

A system exception is possible, preventing a mobile application from accessing the PDS. The token will be able to be rendered and scanned at a dispenser regardless. Any additional functionality will be managed by mobile application operators.