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Detailed Requirements Definition

Electronic Transfer of Prescription 1.1

Version 1.1 —17 December 2010

Final

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1 Introduction

1.1 Purpose

This document defines and explains the functionality required by the Electronic Transfer of Prescriptions (ETP) participants involved in the exchange of prescription information.

For proper functioning, this ETP framework requires coordinated collaboration amongst four participating entities, namely:

- The Electronic Dispensing System (EDS)
- The Electronic Prescribing System (EPS)
- The Prescription Exchange Service (PES)
- The Agent Organisation System (AOS).

This collaborative activity relies on a shared, accepted definition of an interoperable framework, using a defined set of system functions and information flows. The requirements specified in this document are intended to realise the business requirements of ETP, whilst having the flexibility to cater for future requirements.

In addition, these requirements drive the development of the ETP Solution Specification, the Structured Document Templates, and the implementation-level message specifications.

1.2 Intended audience

This document is intended for stakeholders associated with the development of the ETP program of work including:

- Clinicians interested in Health Informatics
- Owners and managers of healthcare services
- Healthcare software developers
- Health sector regulators and administrators.

1.3 Document Map

The following diagram represents the relationship between this document and others within the ETP Release 1.1 package.

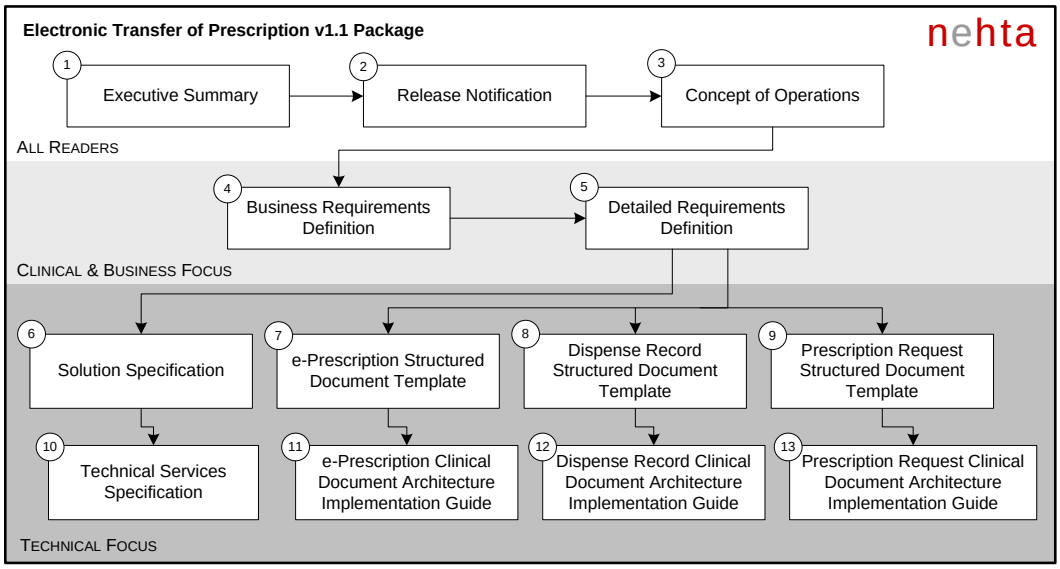

Figure 1 ETP - Document Map

1.4 Document Scope

This document includes the following:

- Domain view; defining the participants, the roles they assume in the ETP framework and the main information concepts/artefacts they utilise
- State view; defining specific information concepts within the state models related to the objects transferred between participants of the ETP framework
- Simplified business interaction view; introducing core ETP interactions to show how the functional elements can be orchestrated to achieve a designated business goal
- Use Case view; describing functional goals, behaviour, collaborating participants, and functional requirements
- Information flow view; identifying the discrete information exchanges which take place between participants
- Information requirements; cataloguing all information concepts needed to support an interoperable exchange of prescribing and dispensing information.

1.5 Interoperability

Detailed requirements for ETP rely upon the use of national infrastructure capabilities developed by NEHTA, which are also designed to enable functional and semantic interoperability.

Consequently, all participating ETP systems will be able to exchange information:

- Securely and efficiently
- In an on-going manner
- In a way that is consistently and unambiguously understood by all compliant ETP participants.

To achieve this, ETP requires the use of the following national infrastructure services:

- Individual Healthcare Identifier (IHI) for the identification of a Subject of Care
- Healthcare Provider Identifier - Individual (HPI-I) for the identification of Prescribers and Dispensers
- Healthcare Provider Identifier - Organisation (HPI-O) for the identification of the organisation that provides healthcare services to the Subject of Care (e.g. Agent Organisations such as Aged Care Facilities).
- National Clinical Terminology and Information Service (NCTIS) for describing clinical information consistently and unambiguously.[1]
- Secure messaging specifications for safe and efficient exchange of information between the EPS, EDS, PES, and the AOS.
- National Authentication Service for Health (NASH) for an authentication mechanism based on digital certificates to assert the identities of ETP participants.

1.6 Assumptions and Constraints

The requirements expressed in this document are founded upon the following assumptions:

- Electronic Prescriptions contain only one medication item
- Electronic communication between ETP participants (i.e. EPS, EDS, PES, AOS) is expected to be near-instantaneous
- The organisations that employ/engage the Prescriber and the Dispenser determine which personnel are authorised to access and perform operations on the EPS and EDS
- All clinical documents (i.e. prescriptions, dispense records) are encrypted by the sender system (e.g. EPS or EDS) and decrypted by the Receiver system (e.g. EPS or EDS)
- These specifications attempt to treat participating systems as ‘black boxes’, where possible, and largely leave the implementation of the requirements to the designers of those systems.

1.7 Questions and Feedback

This document is based on stakeholder input and aims to accurately communicate the processes and requirements of business stakeholders. As such, NEHTA values feedback about the suitability and completeness of these requirements. Please email questions or feedback to medication.management@nehta.gov.au for follow-up.

[1] This incorporates use of the Australian Medicines Terminology (AMT) for expressing prescribed and dispensed medications, and SNOMED-CT for the resolution of other clinical concepts within scope for ETP.

1.8 Definitions, Acronyms and Abbreviations

For lists of definitions, acronyms and abbreviations, see the Definitions section at the end of the document.

1.9 References and Related Documents

For lists of referenced documents, see the References section at the end of the document.

2 Domain View

This section introduces the key information concepts and the participants that generate and consume this information within the ETP domain.

2.1 ETP Information Concepts

The following information concepts are used within the domain.

2.1.1 Prescription

A formal order for a single medication to be dispensed and supplied to the Subject of Care or their Agent.

2.1.1.1 Number of Remaining Dispenses

A Prescription may be dispensed a number of times according to any specified number of repeats.

This is managed as a count. ETP refers to this count as the ‘number of remaining dispenses’. This is a logical representation of a value that is initiated when a Prescription is created.

With each successful dispense, this count is reduced by one.

When the number of the repeat is reduced, this count is also reduced accordingly.

If a successful dispense record is reversed, then this count is increased.

2.1.2 Medication

A general concept that embodies all therapeutic and medicinal items, which can be prescribed for the treatment of the Subject of Care.

A medication may include prescribable medical and surgical consumables such as tablets, ointments, dressings, bandages, etc.

2.1.3 Observation

Relevant clinical observations made in relation to a Subject of Care and which add important clinical value in the prescribing and dispensing process.

2.1.4 Dispense Record

Embodies all the attributes that describe the successful dispense of a Prescription. This provides a formal record of the dispense which can be made available as part of a prescription dispense history.

2.1.5 Dispense Event

Embodies the real-world activity of a Dispenser's attempt to dispense a prescribed medication to the Subject of Care.

With ETP, the event commences with presentation of the prescription document access key (DAK) to the Dispenser.

The event is completed with one of two possible outcomes:

1. Successful dispense of medication to the Subject of Care or their agent. This outcome results in the creation of a dispense record, or

2. Unsuccessful dispense. This outcome results in no dispense record being created.

2.2 ETP Participants

The following sections describe the participants and their roles within the domain.

2.2.1 Subject of Care

An individual undergoing medication treatment under the supervision of a healthcare provider.

2.2.2 Prescriber

Individual provider approved to prescribe medication to the Subject of Care. The Prescriber uses the EPS to manage medication information (e.g. create the Prescription).

2.2.3 Dispenser

Individual provider associated with an organisation approved to dispense and supply prescribed medication to a Subject of Care. The Dispenser uses the EDS to manage medication information.

2.2.4 Provider Organisation

The organisation that is associated with (e.g. employs) the Prescriber or the Dispenser.

2.2.5 Agent

A parent, guardian, or some other person acting on behalf of a Subject of Care upon their consent for obtaining supply of the prescribed medication.

2.2.6 Agent Organisation (AO)

The organisation that represents the Subject of Care in managing their medication needs. Examples include Aged Care Facilities.

The AO uses their system (AOS) to manage medication information of the Subject of Care.

2.2.7 Prescription Exchange Service

An e-Health Service that supports defined interfaces and services to facilitate the transfer of electronic Prescriptions and related information between Prescribers and Dispensers.

2.2.8 Electronic Prescribing System

A component of a clinical information system used to prescribe medications.

2.2.9 Electronic Dispensing System

A component of a clinical information system used to dispense medications.

2.2.10 Agent Organisation System

The system the AO uses to manage Prescriptions.

3 State View

This section describes states and transitions for core ETP business objects.

3.1 Prescription

A Prescription represents an order for a single medication item that has been authored and signed by an approved registered medical practitioner.

3.1.1 Prescription

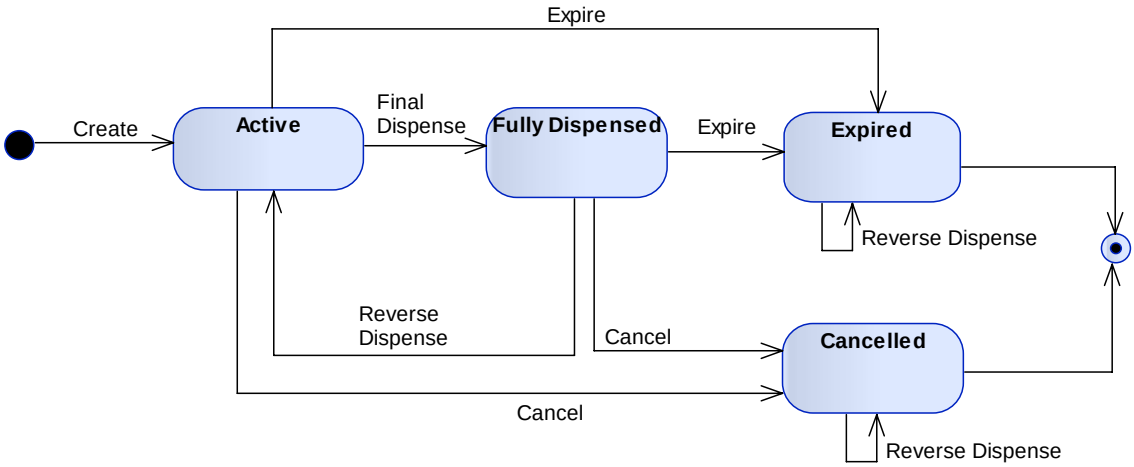

Figure 2: Prescription

3.1.1.1 States

State	Description
Fully Dispensed	Original Prescription and all available repeats have been dispensed. The Prescription is no longer active.
Expired	The Prescription has expired in accordance with governing statutory requirements and/or a predefined expiry date. The Prescription is now inactive and cannot be subject to further transitions.
Cancelled	The Prescriber cancels the Prescription. The Prescription is now inactive. A Prescription cannot transition from this state back to any other state.
Active	The Prescription is available for dispense. Each time that an EDS downloads a Prescription, this event is recognised by the PES and the Prescription is shown to be undergoing a dispense. In certain exception scenarios, a Prescription may be shown to be concurrently undergoing dispense by more than one Dispenser. That is, it is possible for more than one Dispenser to have commenced dispensing on the same Prescription. The PES uses this event knowledge to inform ETP participants of the potential for concurrent dispense.

3.1.1.2 Transitions

Name	Description
Expire	From Fully Dispensed To Expired. In accordance with either policy or predefined expiry dates, the Prescription is transitioning to the expired state from being fully dispensed.
Cancel	From Fully Dispensed To Cancelled. The Prescriber chooses to cancel the Prescription when it is fully dispensed. The cancel operation can still have effect even if it precedes the actual supply of medication to the Subject of Care.
Reverse Dispense	From Fully Dispensed To Active. One or more previous dispense events are reversed.
Final Dispense	From Active To Fully Dispensed. This is the last authorised dispense of a medication.
Expire	From Active To Expired. In accordance with either policy or predefined expiry dates, the Prescription is transitioning from being active.
Cancel	From Active To Cancelled. The Prescriber has cancelled the Prescription. This transition may still have effect for 'Fully Dispensed' Prescriptions if the cancel transition is captured prior to supply.
Create	To activate the Prescription in the ETP framework, the Prescriber has fully authored and prepared the Prescription. The Prescription is valid and complete. Finally, the Prescriber has signed the Prescription.
Reverse Dispense	From Cancelled To Cancelled. Where a dispense occurs, and the Prescription is subsequently cancelled, the dispense can be reversed and the Prescription remains cancelled.
Reverse Dispense	From Expired To Expired. Where a dispense occurs, and the Prescription subsequently expires, the dispense can be reversed and the Prescription remains expired.

3.2 Dispense Record

A Dispense Record instance is created as part of successfully dispensing a Prescription.

A Dispense Record is affected by only two Dispenser actions; creation and reversal.

3.2.1 Dispense Record

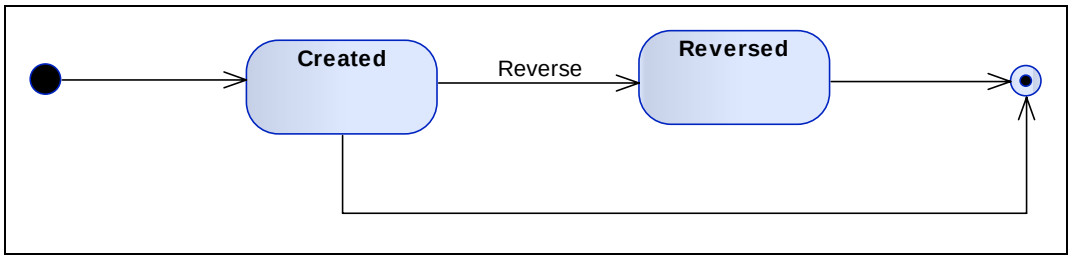

Figure 3: Dispense Record

3.2.1.1 States

State	Description
Created	A dispense record is created as part of a successful dispense event.
Reversed	A dispense event is unwound/rolled back/reversed.

3.2.1.2 Transitions

Name	Description
Reverse	From Created To Reversed. Reversal of a dispense record represents the Dispenser's need to unwind or roll back the record of dispense. This may be relevant in scenarios such as: - After dispense is complete, the Subject of Care does not take supply of the medication - The dispense is erroneous in some way and the Dispenser needs to reverse a dispense record instance so as to create a correct instance.

4 Simplified Business Interaction View

This section contains stylised diagrams that render in simplified terms, the main ETP business interactions.

These diagrams are devoid of business and system level acknowledgments and other service/message considerations. The main purpose of these diagrams is to articulate the key information flows present in ETP.

4.1 Subject of Care Managed Supply

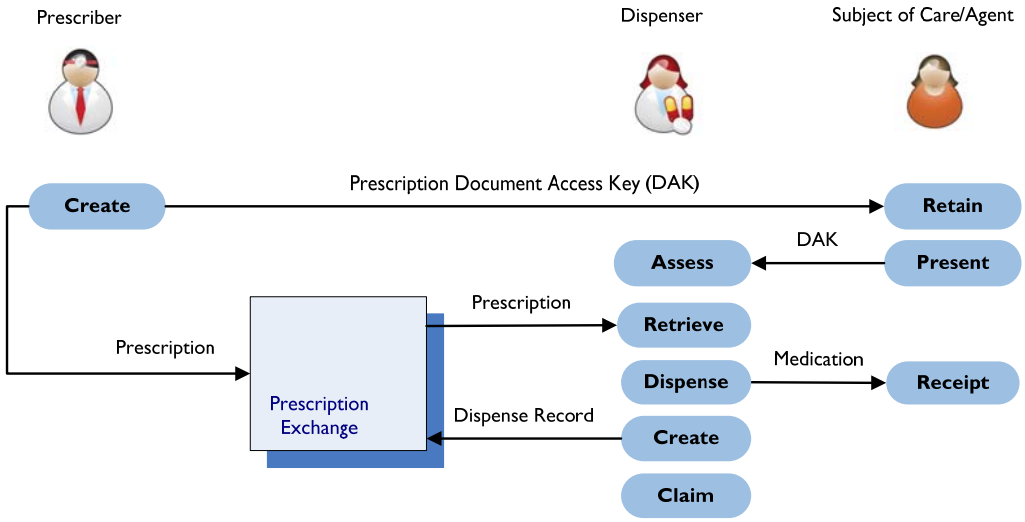

Figure 4: Subject of Care Managed Supply

This diagram outlines the community-based scenario involving a Subject of Care or their individual agent seeking the receipt of supply of a medication item by presenting the Prescription at a community based pharmacy.

For this to happen successfully, the Prescriber has created a Prescription and sent it the PES. The associated DAK is given to the Subject of Care. The Subject of Care then presents the DAK to a Dispenser who proceeds to download the Prescription (from the PES) and process the request (made by the Subject of Care/agent) to dispense and supply the medication item.

4.2 Request for Prescription - Owing

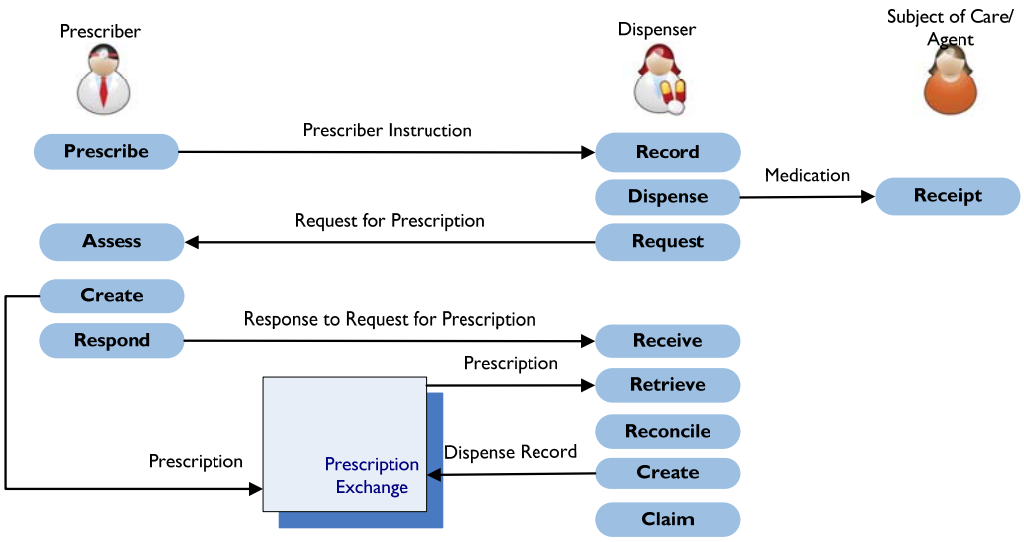

Figure 5: Request for Prescription - Owing

This diagram reflects the 'owing' scenario where a medication is dispensed on the basis of a received Prescriber instruction. The instruction may be verbal or non-verbal.

Post-dispense, the Dispenser requests an original Prescription to support the dispense. On receipt of the request, the Prescriber may satisfy the request via the creation of a Prescription and provision of the response outcome to the Dispenser.

4.3 Facility Managed Supply

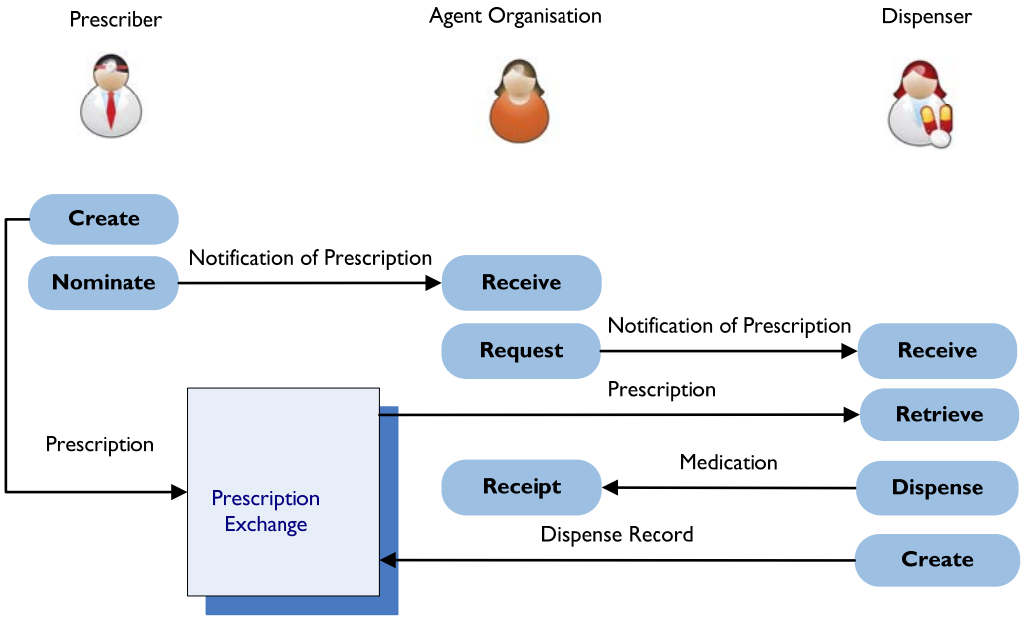

Figure 6: Facility Managed Supply

This diagram reflects the managed supply scenario where a patient has formally consented to an agent organisation (AO) to obtain supply of medication on their behalf. Examples of Facilities that manage supply include aged care facilities, and private hospitals.

This interaction model provides a means for a Prescriber to electronically convey Prescription summary details (including the DAK) to an AO.

The organisation, in its role as coordinating pharmaceutical supply on behalf of a patient, can on-forward the Prescription summary and DAK to a contracted pharmacy for dispense.

A Dispenser cannot dispense from a Prescription summary alone and must interact with the PES in order to obtain the electronic Prescription and to achieve dispense.

4.4 Notification of Last Supply

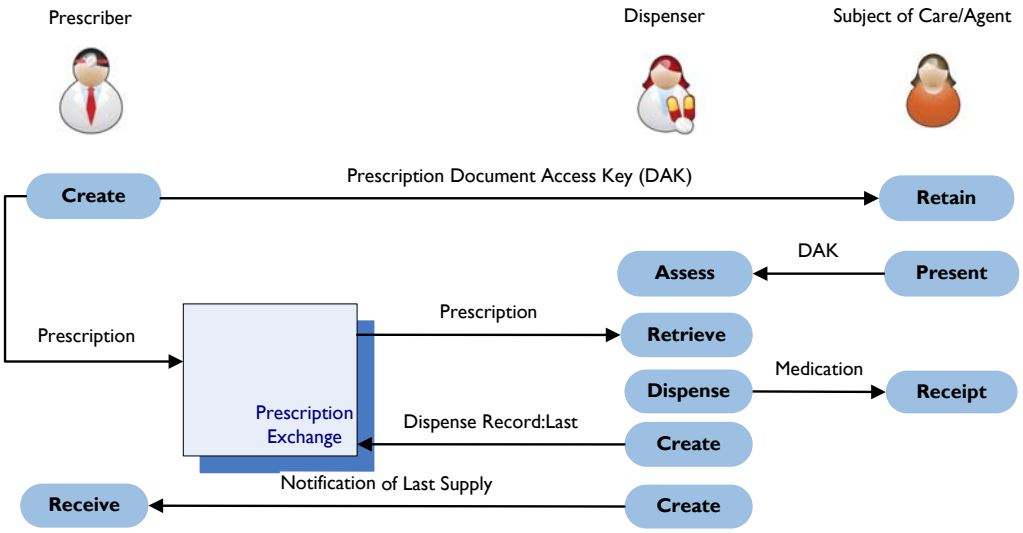

Figure 7: Notification of Last Supply

This diagram reflects the dispense scenario where a patient has been supplied the final repeat for a Prescription and where this event is signalled to the Prescriber.

The notification includes the Prescription identifier assigned by the prescribing system for resolution against the Prescription.

5 Use Case View

This section describes the system Use Cases for the scope of the project. The Use Cases are segmented into EPS, EDS, PES, and AOS models. These models serve to illustrate the functional requirements of each system being modelled.

These specifications are not concerned with the internal design of these systems, but rather focus on the standardised generation and consumption of messages/documents between these systems, and also the management of state that affects those messages.

5.1 Electronic Prescribing System

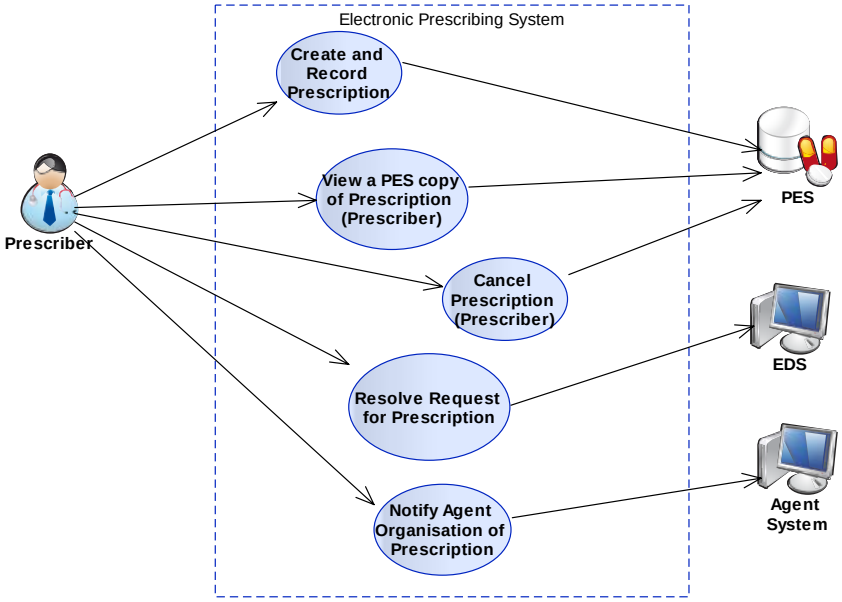

Figure 8: Electronic Prescribing System

This set of Use Cases describes the behaviour required by the EPS in order to perform a series of tasks depicted as the goal of the Use Case. The Prescriber (the primary actor) interacts with the EPS in order to initiate and facilitate the fulfilment of the goal.

5.1.1 Create and Record Prescription

Name	Create and Record Prescription
Goal	To create and record a complete Prescription.
Primary Actor	Prescriber
Other Actors	PES
Assumptions	The Prescriber is authorised to create a Prescription.
Pre-conditions	1. The Prescriber organisation is a participant in the PES. 2. The Prescriber has determined that the Prescription will be sent to the PES.
Triggers	The Prescriber chooses to create a Prescription in the EPS.

Basic Flow of Events

1. The Prescriber uses the prescribing function in the EPS to create a complete Prescription.
2. The EPS assigns a nationally unique DAK to the Prescription.
3. The EPS produces a paper or electronic notification of the Prescription including the DAK for the Prescriber to give to the Subject of Care.
4. The EPS submits the Prescription to the PES.
5. The Use Case ends.

Alternative Flows

Notification to the AO

1. At step 3 in the Basic Flow of Events, the Prescriber determines that the AO should be the recipient of the Prescription notification.

2. The Notify AO of Prescription Use Case is executed.

3. The Use Case ends.

Notification to the Dispenser

1. At step 3 in the Basic Flow of Events, the Prescriber determines that the Dispenser should be the recipient of the Prescription notification.
2. Flow of control returns to step 4 in the Basic Flow of Events.

Prescription rejected

1. At step 4 in the Basic Flow of Events, the PES rejects the Prescription.
2. The EPS notifies the Prescriber that the Prescription has been rejected.
3. The Use Case ends.

Post-conditions	The Prescription is available in the PES in the 'Active' state, or the Prescriber is notified otherwise.
Notes	1. A complete Prescription includes a Prescriber's digital signature authorising the Prescription. 2. Rejection by the PES at step 4 will only be in response to an unrecoverable error requiring the intervention of the Prescriber to resolve. 3. Information Flow: Prescription, Notification of Prescription.

5.1.2 View a PES copy of Prescription (Prescriber)

Name	View a PES copy of Prescription (Prescriber)
Goal	To view a Prescription that has been previously created.
Primary Actor	Prescriber
Other Actors	PES
Assumptions	None
Pre-conditions	1. The Prescriber has access to the DAK. 2. The Prescription exists in the PES.
Triggers	The Prescriber chooses to view a Prescription.

Basic Flow of Events

1. The Prescriber supplies the DAK.
2. The EPS retrieves the Prescription from the PES via the Retrieve Prescription Use Case.
3. The EPS displays the Prescription.
4. The Use Case ends.

Alternative Flows

None

Post-conditions	None
Notes	1. Prescriptions can be viewed in any state. 2. Information Flow: Prescription

5.1.3 Cancel Prescription (Prescriber)

Name	Cancel Prescription
Goal	To make a Prescription void and unavailable for further dispense.
Primary Actor	Prescriber
Other Actors	PES
Assumptions	The Prescriber is authorised to cancel the Prescription.
Pre-conditions	The Prescriber has access to the DAK.
Triggers	The Prescriber chooses to cancel a Prescription.

Basic Flow of Events

1. The Prescriber chooses to cancel a Prescription.
2. The EPS sends a cancellation message to the PES.
3. The PES verifies that the Prescription can be cancelled.
4. The EPS informs the Prescriber to contact the Subject of Care to stop taking the medication.
5. The Use Case ends.

Alternative Flows

Prescription cannot be cancelled.

1. At step 3 in the Basic Flow of Events, the PES determines that the Prescription cannot be cancelled.

2. The PES rejects the request.

3. The EPS informs the Prescriber that the Prescription cannot be cancelled and thus the operation is unsuccessful.

4. The Use Case ends.

Post-conditions	1. If the Prescription is cancelled, its state is set to 'Cancelled'. 2. If the Prescription cannot be cancelled, its state is

	unchanged.
Notes	1. The Prescriber is recommended to review the Prescription before cancelling it. 2. The Prescriber who can cancel the Prescription must be a representative of the same organisation as the Prescriber who created it. 3. Information Flow: Request to Cancel Prescription.

5.1.4 Resolve Request for Prescription

Name	Resolve Request for Prescription
Goal	To resolve a request for a Prescription received from a Dispenser who has dispensed based on a Prescriber Instruction. A Prescriber may: 1. Satisfy the request, providing a new or existing Prescription. 2. Deny the request, providing no Prescription. 3. Defer the request, leaving the request pending.
Primary Actor	Prescriber
Other Actors	EDS
Assumptions	None
Pre-conditions	The EPS has received a request for a Prescription.
Triggers	The Prescriber chooses a specific request to resolve.

Basic Flow of Events

1. The Prescriber reviews the request for the Prescription.
2. The Prescriber chooses to satisfy the request by opting to create a new Prescription (using the Create and Record Prescription Use Case).
3. The EPS sends a response to the EDS identifying the Prescription with its DAK.
4. The Use Case ends.

Alternative Flows

Defer Request- Request remains unresolved

1. At step 2 in the Basic Flow of Events, the Prescriber chooses to not action the request.
2. The Use Case ends.

Deny Request- No creation of Prescription

1. At step 2 in the Basic Flow of events, the Prescriber chooses to deny the request.
2. The Prescriber provides the reason for denying the request.
3. The EPS sends a response to the EDS denying the request, including the reason.
4. The Use Case ends.

Prescription already created

1. At step 2 in the Basic Flow of Events, the Prescriber determines that a Prescription (for that request) has already been created and is present in the PES.
2. The Prescriber chooses to satisfy the request using the existing Prescription.
3. Flow of control returns to step 3 in the Basic Flow of events.

Post-conditions	The request is either resolved or unresolved.
Notes	Information Flow: Response to Request for Prescription.

5.1.5 Notify AO of Prescription

Name	Notify AO of Prescription
Goal	To notify the AO that a Prescription has been created.
Primary Actor	Prescriber
Other Actors	Agent System
Assumptions	None
Pre-conditions	1. The Prescription is created and sent to the PES via the Create Prescription Use Case.
Triggers	The Prescriber elects to direct a Prescription to an AO.

Basic Flow of Events

1. The EPS informs the AOS that a Prescription was created, supplying its DAK and summary attributes.
2. Use Case ends.

Alternative Flows

None

Post-conditions	The Agent's System has received the notification.
Notes	Information Flow: Notification of Prescription

5.2 Electronic Dispensing System

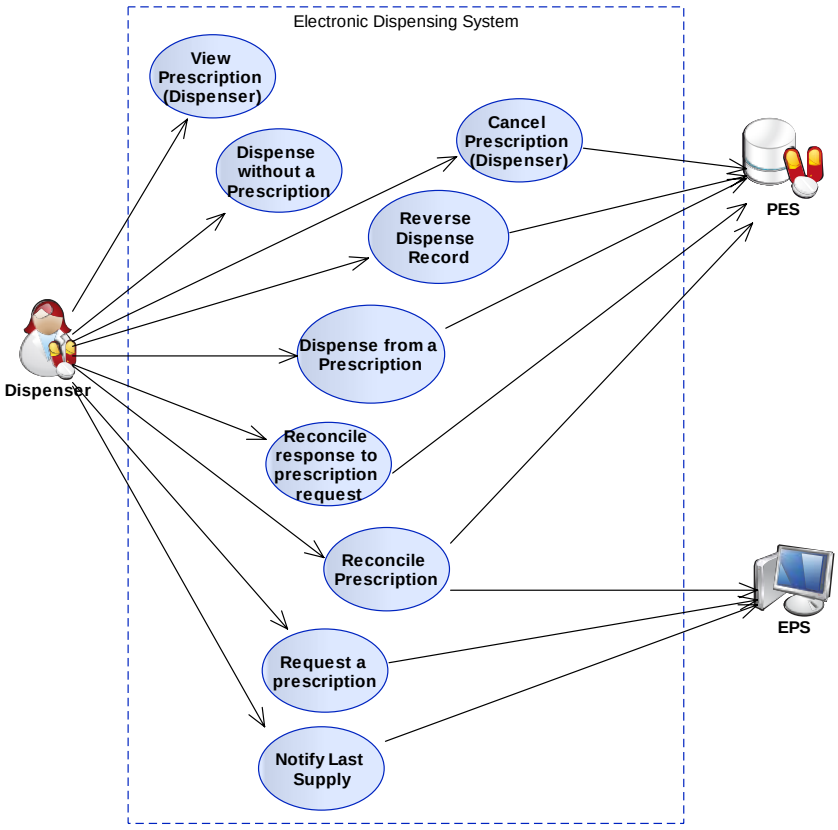

Figure 9: Electronic Dispensing System

This set of Use Cases describes the behaviour required by the EDS in order to perform a series of tasks depicted as the goal of each Use Case. In all cases, the primary actor, which is the Dispenser, interacts with the EDS in order to initiate and facilitate the fulfilment of the goals.

5.2.1 Dispense from a Prescription

Name	Dispense from a Prescription
Goal	To dispense from a Prescription.
Primary Actor	Dispenser
Other Actors	PES
Assumptions	None
Pre-conditions	None
Triggers	The Dispenser chooses to dispense from the Prescription.

Basic Flow of Events

1. The Dispenser supplies the DAK to the EDS.
2. The EDS requests the PES to initiate the dispense.
3. The PES returns the Prescription, its dispense history (any non-reversed dispense records) and any in-progress dispenses to the EDS.
4. The EDS displays the Prescription, its dispense history and any in-progress dispenses.

5. The Dispenser views the Prescription and the dispense history.
6. The Dispenser uses the EDS dispensing function to dispense the Prescription.
7. The EDS sends the dispense record to the PES to finalise the dispense.
8. The Use Case ends.

Alternative Flows

Dispense and retry sending

1. At step 3 in the Basic Flow of Events, the EDS determines that the Prescription cannot be retrieved from the PES for dispensing.

2. The EDS dispenses the medication locally and retries to contact the PES in order to dispense off the PES Prescription.

3. The Use Case ends.

Prescription cannot be dispensed

1. At step 3 in the Basic Flow of Events, the PES does not return the Prescription because it is either 'Fully Dispensed', 'Cancelled', 'Expired', or not found.

2. The EDS informs the Dispenser the Prescription cannot be dispensed because it's either cancelled, expired, or fully dispensed.

3. The Use Case ends.

Abandon Dispense

1. At step 6 in the Basic Flow of Events, the Dispenser chooses not to proceed with the dispense.

2. The EDS sends a message to the PES indicating that the dispense has been abandoned.

3. The Use Case ends.

Post-conditions	The EDS creates a dispense record for the medication dispensed. This record of dispense is certified. Medications not dispensed do not have a dispense record.
Notes	1. The EDS displays the following information for dispenses that are in progress: - Dispenser Full Name - Dispenser Organisation - Date and Time of commencement of dispense - Dispenser contact details. 2. Information Flow: Prescription, Response to Request to Dispense, Request to Dispense, Dispense History, Dispense Record

5.2.2 View Prescription (Dispenser)

Name	View Prescription (Dispenser)
Goal	To view a previously-dispensed Prescription.

Primary Actor	Dispenser
Assumptions	None
Pre-conditions	The Dispenser has access to a local copy of the Prescription.
Triggers	The Dispenser chooses to view a Prescription.

Basic Flow of Events

1. The Dispenser chooses the Prescription to view.
2. The EDS displays the Prescription, plus any previous dispenses.
3. The Use Case ends.

Alternative Flows

No local copy of the Prescription

1. At step 1 in the Basic Flow of Events, the EDS does not hold a copy of the Prescription.
2. The Use Case ends.

Post-conditions	None
Notes	1. Prescriptions can be viewed in any state. 2. Dispensers can only view the local copy of a prescription and its dispense records unless commencing a dispense operation. The EDS cannot retrieve prescriptions and dispense records from the PES except in the context of a dispense operation. 3. Information Flow: Prescription

5.2.3 Dispense without a Prescription

Name	Dispense without a Prescription
Goal	To dispense a medication without a Prescription.
Primary Actor	Dispenser
Assumptions	None
Pre-conditions	1. The Dispenser has received instruction from the Prescriber to dispense without a prescription (the Prescriber instruction).
Triggers	The Dispenser chooses to dispense without a prescription.

Basic Flow of Events

1. The Dispenser uses the EDS dispensing function to record the Prescriber Instruction and dispense the medication without a prescription.

2. The Dispenser requests a prescription using the Request a Prescription Use Case.

3. The Use Case ends.

Alternative Flows

None

Post-conditions	The Dispenser has a record of the medication dispensed including the Prescriber Instruction. This record is certified to denote successful dispense.
Notes	1. The Use Case does not interact with the PES, but keeps a local dispense record until reconciliation occurs. 2. Information Flow: Request for Prescription.

5.2.4 Request a Prescription

Name	Request a Prescription
Goal	To request a prescription after dispensing a medication on instruction from a Prescriber but without a prescription.
Primary Actor	Dispenser
Other Actors	EPS
Assumptions	None
Pre-conditions	The Dispenser has received an instruction from the Prescriber to dispense without a Prescription.
Triggers	Invoked from the Dispense without Prescription Use Case, or the Dispenser chooses to send another request for an unreconciled dispense.

Basic Flow of Events

1. The EDS forms a request (including the Prescriber Instruction) based on the chosen dispense-without-a-prescription record.
2. The Dispenser edits and/or completes the request.
3. The EDS sends the request to the EPS.
4. The Use Case ends.

Alternative Flows

None

Post-conditions	The EDS has a record of the request it sends to the EPS.
Notes	1. Information Flow: Request for Prescription.

5.2.5 Reconcile response to Prescription request

Name	Reconcile response to Prescription request
Goal	To match a record of a Dispense without Prescription to the covering Prescription received in a response to a Prescription request.
Primary Actor	Dispenser
Other Actors	PES
Assumptions	None
Pre-conditions	1. A dispense without Prescription has occurred and a request for a covering Prescription has been sent.

2. The EDS has matched the received response with the request and dispense record.

Triggers The Dispenser chooses to reconcile the response

Basic Flow of Events

1. The EDS requests the PES to initiate the dispense.
2. The PES returns the Prescription, its dispense history (any non-reversed dispense records) and any in-progress dispenses to the EDS.
3. The EDS displays the Prescription, its dispense history and any in-progress dispenses.
4. The Dispenser views the response, the Prescription and the dispense history.
5. The Dispenser verifies that the Prescription matches the unreconciled Dispense without Prescription record.
6. The EDS associates the dispense record to the received Prescription.
7. The EDS sends the dispense record to the PES to finalise the dispense.
8. The Use Case ends.

Alternative Flows

Prescription cannot be dispensed

1. At step 2 in the Basic Flow of Events, the PES determines that the Prescription cannot be dispensed because it is either; fully dispensed, cancelled, or expired.

2. The PES informs the Dispenser the Prescription cannot be dispensed because it's either cancelled, expired, or fully dispensed.

3. The Use Case ends.

Unsuccessful Reconciliation

1. At step 5 in the Basic Flow of Events, the Dispenser finds that the Prescription does not match the unreconciled Dispense without Prescription record.
2. The Dispenser enters the reason for not completing the reconciliation.
3. The EDS sends a message to the PES indicating that the dispense has been unsuccessful.
4. The Use Case ends.

Post-conditions None

Notes 1. Information Flow: Prescription, Dispense History, Dispense Record, Response to Request for Prescription.

5.2.6 Reconcile Prescription

Name Reconcile Prescription

Goal To match a record of a Dispense without Prescription to the covering Prescription received by some means other than a response to a request.

Primary Actor Dispenser

Other Actors	EPS PES
Assumptions	The Dispenser has dispensed a medication for which there is no Prescription.
Pre-conditions	The Dispenser has the DAK for a Prescription that has been dispensed (without a Prescription).
Triggers	The Dispenser chooses to reconcile a Prescription.

Basic Flow of Events

1. The Dispenser supplies the DAK to the EDS.
2. The EDS requests the PES to initiate the dispense.
3. The PES returns the Prescription, its state, and the dispense history (any non-reversed dispense records) to the EDS.
4. The EDS displays the Prescription and its dispense history, including any in-progress dispenses.
5. The Dispenser views the Prescription and the dispense history.
6. The Dispenser chooses the corresponding unreconciled Dispense without Prescription record.
7. The EDS attaches the dispense record to the received Prescription.
8. The EDS sends the dispense record to the PES to finalise the dispense.
9. The Use Case ends.

Alternative Flows

Prescription cannot be dispensed

1. At step 3 in the Basic Flow of Events, the PES determines that the Prescription cannot be dispensed because it is either; fully dispensed, cancelled, or expired.

2. The PES informs the Dispenser the Prescription cannot be dispensed because it's either cancelled, expired, or fully dispensed.

3. The Use Case ends.

Unsuccessful Reconciliation

1. At step 6 in the Basic Flow of Events, the Dispenser finds that the Prescription does not match any unreconciled Dispense without Prescription record.
2. The Dispenser enters the reason for not completing the reconciliation.
3. The EDS sends a message to the PES indicating that the dispense has been unsuccessful.
4. The Use Case ends.

Post-conditions	The PES contains the dispense record associated to a Prescription for successful reconciliations.
Notes	1. Information Flow: Response to Request for Prescription.

5.2.7 Reverse Dispense Record

Name	Reverse Dispense Record
Goal	To void the record of dispense.
Primary Actor	Dispenser
Other Actors	PES
Assumptions	The Dispenser is authorised to reverse the Prescription
Pre-conditions	The Dispenser has access to the local copy of the dispense record.
Triggers	The Dispenser chooses to reverse the dispense record.

Basic Flow of Events

1. The Dispenser chooses to reverse the dispense record.
2. The Dispenser enters the reason for reversal of the dispense record in the EDS.
3. The EDS sends the reversal message to the PES, along with the reason for reversal.
4. The Use Case ends.

Alternative Flows

None

Post-conditions	The dispense is reversed.
Notes	1. Information Flow: Reverse Dispense Record.

5.2.8 Cancel Prescription (Dispenser)

Name	Cancel Prescription (Dispenser)
Goal	To make a Prescription void and unavailable for further dispense.
Primary Actor	Dispenser
Other Actors	PES
Assumptions	The Dispenser is authorised to cancel the Prescription.
Pre-conditions	The Dispenser has access to the DAK.
Triggers	The Dispenser chooses to cancel a Prescription.

Basic Flow of Events

1. The Dispenser chooses to cancel a Prescription.
2. The EDS sends a cancellation message to the PES.
3. The PES verifies that the Prescription can be cancelled.
4. The EDS informs the Dispenser to contact the Subject of Care to stop taking the medication.
5. The Use Case ends.

Alternative Flows

Prescription cannot be cancelled.

1. At step 3 in the Basic Flow of Events, the PES verifies that the Prescription cannot be cancelled.

2. The PES rejects the request.

3. The EDS informs the Dispenser that the Prescription cannot be cancelled and thus the operation is unsuccessful.

4. The Use Case ends.

Post-conditions	1. If the Prescription is cancelled, its state is set to 'Cancelled'. 2. If the Prescription cannot be cancelled, its state is unchanged.
Notes	1. The Dispenser is recommended to review the Prescription before cancelling it. 2. Information Flow: Request to Cancel Prescription.

5.2.9 Notify Last Supply

Name	Notify Last Supply
Goal	To notify the Prescriber that the last dispense of a Prescription has occurred.
Primary Actor	Dispenser
Other Actors	EPS
Assumptions	This capability applies only for Prescriptions with repeats.
Pre-conditions	The Dispenser has a record of the Subject of Care's consent to notify the Prescriber upon last supply.
Triggers	The Dispenser has dispensed the last remaining repeat on the Prescription and elects to notify the Prescriber.

Basic Flow of Events

1. The EDS informs the EPS that the last remaining repeat on the Prescription was dispensed.
2. Use Case ends.

Alternative Flows

None

Post-conditions	None
Notes	1. The notified Prescriber may not be the same as the original Prescriber. 2. The Dispenser generates a notification of last supply based on Prescriber preferences. 3. Information Flow: Notification of Last Supply

5.3 Prescription Exchange Service

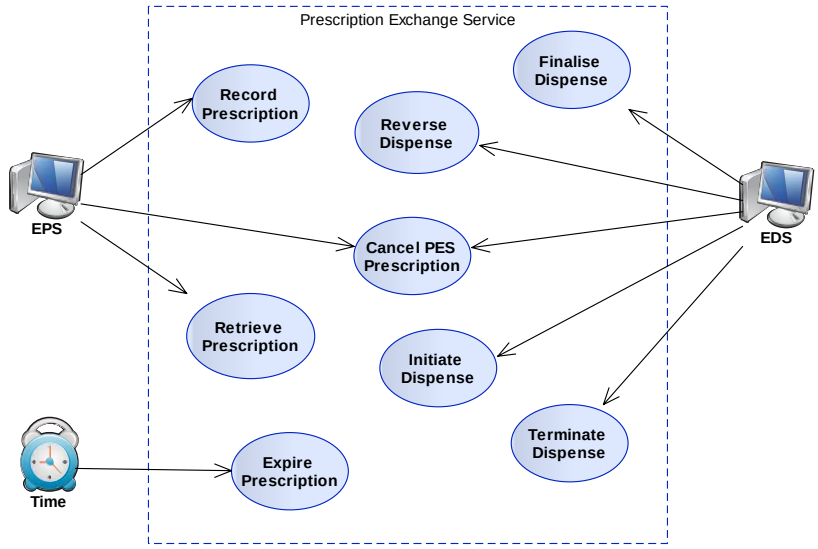

Figure 10: Prescription Exchange Service

This set of Use Cases describes the behaviour required by the PES in order to perform a series of tasks depicted as the goal of each Use Case. The primary actor interacts with the PES in order to initiate and facilitate the fulfilment of the goals.

5.3.1 Record Prescription

Name	Record Prescription
Goal	To record the Prescription in the PES.
Primary Actor	EPS
Assumptions	The EPS has created a Prescription.
Pre-conditions	None
Triggers	The EPS submits the Prescription to the PES.

Basic Flow of Events

1. The EPS submits the Prescription to the PES.
2. The PES records the Prescription.
3. The PES informs the EPS that the Prescription was successfully recorded.
4. The PES records the number of remaining dispenses.
5. The PES sets the state of the Prescription to ‘Active’.
6. The Use Case ends.

Alternative Flows

Prescription not successfully recorded

1. At step 2 in the Basic Flow of events, the PES cannot record the Prescription.
2. The PES informs the EPS that the Prescription cannot be recorded.

3. The Use Case ends.

Post-conditions	1. For successful transactions, the Prescription is recorded in the PES, with an 'Active' state. 2. For unsuccessful transactions, the Prescription is not recorded in the PES.
Notes	1. Failure to record at step 2 will only be in response to an unrecoverable error requiring the manual intervention to resolve. 2.Information Flow: Prescription

5.3.2 Cancel PES Prescription

Name	Cancel PES Prescription
Goal	To cancel the Prescription in the PES.
Primary Actor	EPS EDS
Assumptions	None
Pre-conditions	A Prescription must be stored in the PES.
Triggers	The EPS requests cancellation of the Prescription.

Basic Flow of Events

1. The EPS or EDS informs the PES that the Prescription is required to be cancelled.
2. The PES verifies the Prescription is not cancelled nor expired.
3. The PES sets the state of the Prescription to 'Cancelled'.
4. The PES informs the EPS or EDS that the Prescription has successfully been cancelled and provides the details of any completed or in progress dispenses (including the identity of the Dispenser).
5. The Use Case ends.

Alternative Flows

Prescription cannot be cancelled

1. At step 2 in the Basic Flow of Events, the PES determines that the Prescription is either cancelled or expired.
2. The PES informs the EPS or EDS that the Prescription is already cancelled or expired.
3. The Use Case ends.

Post-conditions	The Prescription in the PES is set to the 'Cancelled' state, or the Prescription has expired and thus in the 'Expired' state.
Notes	1. Information Flow: Prescription, Response to Request for Cancellation.

5.3.3 Retrieve Prescription

Name	Retrieve Prescription
Goal	To retrieve the Prescription from the PES.
Primary Actor	EPS
Assumptions	None
Pre-conditions	None
Triggers	The EPS requests the PES for the Prescription.

Basic Flow of Events

1. The EPS requests the PES for the Prescription.
2. The PES returns the Prescription to the EPS.
3. The Use Case ends.

Alternative Flows

Prescription cannot be found

1. At step 2 in the Basic Flow of events, the PES cannot find the Prescription.
2. The PES informs the EPS that the Prescription cannot be found.
3. The Use Case ends.

Post-conditions	None
Notes	1. A Prescription may be retrieved in any state. 2. Information Flow: Prescription

5.3.4 Initiate Dispense

Name	Initiate Dispense
Goal	To initiate a dispense operation and retrieve the Prescription, its dispense history, and any in-progress dispenses.
Primary Actor	EDS
Assumptions	None
Pre-conditions	None
Triggers	The EDS requests initiation of a dispense for the Prescription.

Basic Flow of Events

1. The EDS requests the PES to initiate the dispense.
2. The PES verifies that the Prescription is in the ‘Active’ state.
3. The PES records that a dispense is in progress for the Prescription.
4. The PES returns the Prescription, its dispense history and any in-progress dispenses to the EDS.
5. The Use Case ends.

Alternative Flows

Prescription Cannot be Dispensed

1. At step 2 in the Basic Flow of Events, the PES determines that the Prescription cannot be dispensed because it is either; fully dispensed, cancelled, or expired.

2. The PES informs the Dispenser the Prescription cannot be dispensed because it's either cancelled, expired, or fully dispensed.

3. The Use Case ends.

Post-conditions	None
Notes	1. Information Flow: Prescription, Dispense History.

5.3.5 Finalise Dispense

Name	Finalise Dispense
Goal	To record the successful completion of the dispense.
Primary Actor	EDS
Assumptions	None
Pre-conditions	The EDS has initiated a dispense operation using the Initiate Dispense Use Case.
Triggers	The EDS sends a dispense record to the PES to finalise the dispense.

Basic Flow of Events

1. The EDS sends the Dispense Record to the PES.
2. The PES verifies that this dispensing organisation has a dispense in progress for this Prescription.
3. The PES stores the Dispense Record.
4. The PES informs the EDS that the Dispense Record was successfully stored.
5. The PES reduces the number of remaining dispenses by 1 plus any additional reduction noted in the Dispense Record, and if the number of remaining supplies has fallen below 1, sets the state of the Prescription to ‘Fully Dispensed’.
6. The Use Case ends.

Alternative Flows

Dispense not in progress

1. At step 2 in the Basic Flow of events, the PES finds that this dispensing organisation does not have a dispense in progress for the Prescription.
2. The PES informs the EDS that the Dispense record cannot be recorded.
3. The Use Case ends.

Dispense Record not successfully recorded

1. At step 3 in the Basic Flow of events, the PES cannot record the Dispense Record.
2. The PES informs the EDS that the Dispense record cannot be recorded.

3. The Use Case ends.

Post-conditions	
	1. For successful transactions, the Dispense Record is recorded in the PES. 2. For unsuccessful transactions, the Dispense Record is not recorded in the PES.
Notes	1. Information Flow: Dispense Record

5.3.6 Terminate Dispense

Name	Terminate Dispense
Goal	To cease the dispensing operation when a dispense is in progress.
Primary Actor	EDS
Assumptions	None
Pre-conditions	The EDS has initiated a dispense operation using the Initiate Dispense Use Case.
Triggers	The EDS indicates that the in-progress dispense is to be terminated.

Basic Flow of Events

1. The EDS informs the PES to terminate the dispense event.
2. The PES informs the EDS that the dispense event was successfully terminated.
3. The Use Case ends.

Alternative Flows

None

Post-conditions	The dispense event is terminated.
Notes	1. Upon deciding to dispense, the dispense is marked in-progress. If the Dispenser then decides to not proceed with the dispense, the dispense event must be closed. 2. Information Flow: Dispense Record.

5.3.7 Reverse Dispense

Name	Reverse Dispense
Goal	To reverse a Dispense Record in the PES.
Primary Actor	EDS
Assumptions	None.
Pre-conditions	A Prescription has been dispensed and therefore a dispense record exists for that medication in the PES.
Triggers	The EDS requests reversal of the dispense record.

Basic Flow of Events

1. The EDS informs the PES that the Dispense Record is required to be reversed.
2. The PES verifies the Dispense Record is not already reversed.
3. The PES reverses the Dispense Record.
4. The PES informs the EDS that the Dispense Record has successfully been reversed.
5. The PES increases the number of remaining dispenses by 1 and if non-zero sets state to active.
6. The Use Case ends.

Alternative Flows

Dispense Record cannot be reversed

1. At step 2 in the Basic Flow of Events, the PES determines that the Dispense Record is already reversed.
2. The PES informs the EDS that the Dispense Record is available for dispense and thus cannot be reversed.
3. The Use Case ends.

Post-conditions	The Dispense Record in the PES is set to the 'Reversed' state.
Notes	1. Information Flow: Dispense Record, Reverse Dispense Record.

5.3.8 Expire Prescription

Name	Expire Prescription
Goal	To expire the Prescription in the PES.
Primary Actor	Time
Assumptions	The expiration date of the Prescription may be less than 12 months as specified by the Prescriber.
Pre-conditions	The EPS sends the date of the expiry of the Prescription to the PES.
Triggers	The allocated time period for the Prescription to be valid has elapsed.

Basic Flow of Events

1. The PES verifies that the allocated time period for the Prescription to valid has elapsed.
2. The PES sets the state of the Prescription to 'Expired'.
3. The Use Case ends.

Alternative Flows

None

Post-conditions	The Prescription is set to the 'Expired' state.
Notes	1. Information Flow: Prescription

5.4 Agent Organisation System

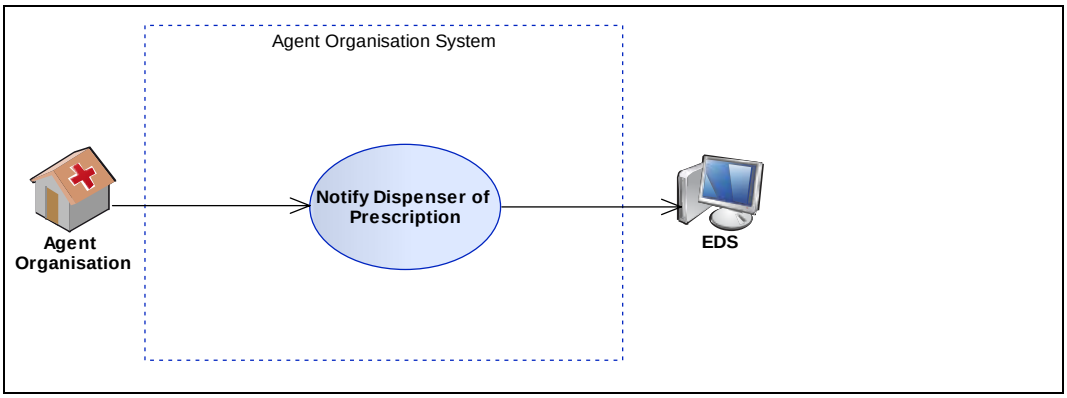

Figure 11: Agent Organisation System

The following Use Case describes the behaviour required by the AOS in order to perform a task depicted as the goal of the Use Case. The primary actor interacts with the EDS in order to initiate and facilitate the fulfilment of the goal.

5.4.1 Notify Dispenser of Prescription

Name	Notify Dispenser of Prescription
Goal	To notify the Dispenser that a Prescription is available for dispense.
Primary Actor	Agent Organisation
Other Actors	EDS
Assumptions	The AO seeks consent from the Subject of Care to obtain medications on their behalf.
Pre-conditions	The Prescription is created and sent to the PES via the Create Prescription Use Case.
Triggers	The AOS receives the Prescription notification from the EPS.

Basic Flow of Events

1. The AOS verifies that the AO has received consent from the Subject of Care to obtain medications on their behalf.
2. The AOS informs EDS that a Prescription was created, supplying its DAK and summary attributes.
3. The AOS informs the AO that the Prescription notification was successfully sent.
4. Use Case ends.

Alternative Flows

Consent not provided

1. At step 1 in the Basic Flow of Events, the AOS determines that the AO has not received consent from the Subject of Care to forward the notification to the dispensing organisation.
2. The AOS produces a paper or electronic notification of the Prescription including the DAK for the AO to give to the Subject of Care.

3. The Use Case ends.

Post-conditions	The EDS has received the Prescription notification or the Subject of Care has received the Prescription notification from the AO.
Notes	Information Flow: Notification of Prescription.

6 Information Flow View

ETP enables the exchange of information between EPS, EDS, PES, and the AOS. The information exchange is conducted within a framework of agreed business level flows.

This section describes the flows in relation to their producing and consuming participants. The flows are shown in a static context and not a dynamic context, where the serial execution of information flows in a coordinated manner is described. This dynamic view will be expressed as part of the solution design.

For now, the flows are simply described in terms of their senders, receivers, and their constituent information elements.

6.1 Business Interaction

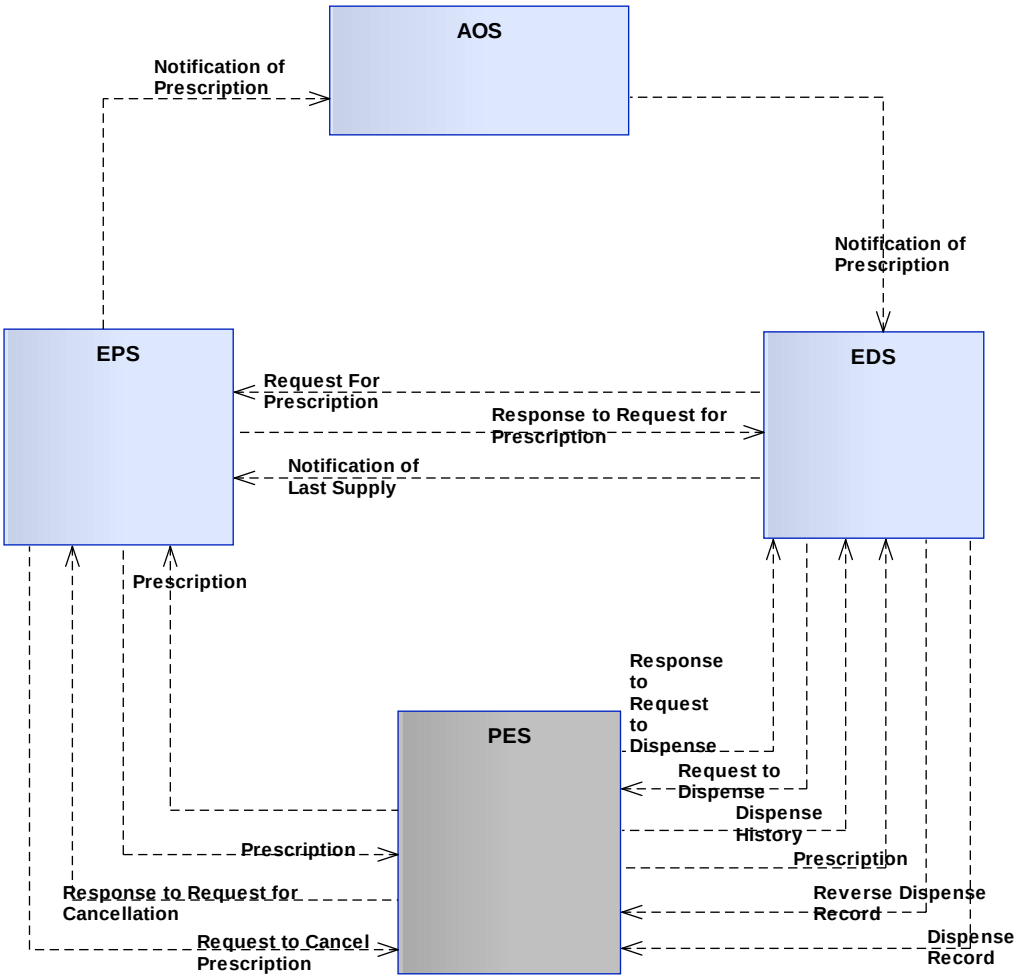

Figure 12: Business Interaction

This communication diagram encapsulates the business layer information flows between ETP participants, namely the EPS, EDS, PES, and AOS.

These flows are not to be confused with messaging or service level concepts expressed at the implementation layer.

6.1.1 Elements

Element	Description
EPS	The Electronic Prescribing System.
PES	The Prescription Exchange Service.
EDS	The Electronic Dispensing System.
AOS	The Agent Organisation System.

6.2 Request for Prescription

EDS request to EPS requesting that a Prescription be created, signed and stored in the PES.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Dispenser	Dispenser Identifier	4462
	Family Name	4459
	Given Name	4460
	Healthcare Provider Qualification	4463
	Title	4461
Dispenser Organisation	Address	4465
	Dispenser Organisation Approval Number	4511
	Dispenser Organisation Contact	4468
	Dispenser Organisation Identifier	4466
Prescriber	Family Name	4420
	Given Names	4421
	Healthcare Provider Field of Practice	4425
	Healthcare Provider Qualification	4426
	Prescriber Identifier	4423
	Prescriber Number	4419
	Title	4422
Prescriber Instruction	Authority	4446
	Prescriber Instruction Content	4491
	Prescriber Instruction Received Date & Time	4489
	Prescriber Instruction Reference	4490
	Prescriber Instruction Type	4492
Prescriber Organisation	Address	4430
	Prescriber Organisation Contact	4434
	Prescriber Organisation Identifier	4432
Prescription	Authority	4446
	Brand Substitution	4455
	Deliver to Location	4625
	Dosage	4449
	Expiry Date	4441
	Maximum Number of Repeats	4452
	Medication	4448

Requirement Package	Requirement	Id
	Minimum Dispensing Interval	4453
	Note	4443
	Packing Instruction	4907
	PBS Benefit Category	4447
	Prescription Identifier	4442
	Quantity	4451
	Reason for Medication	4450
	Regulation 24	4454
	Safety Net Entitlement	4444
	Start Date	4440
	Therapeutic Substitution	4652
	CTG Eligible	5826
Request for Prescription	Dispenser Note to Prescriber	4496
Subject of Care	Age	4416
	Australian Address	4417
	Date of Birth	4415
	Entitlement Card	4414
	Family Name	4407
	Given Names	4408
	Subject of Care Identifier	4406
	Sex	5821
	Title	4409

6.3 Response to Request for Prescription

This refers to the response to the original EDS request for Prescription. It may contain the DAK pointing to the Prescription located within the PES, or it may contain rejection information.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Request for Prescription	Request for Prescription Outcome	4494
	Request for Prescription Outcome Note	4495

6.4 Prescription

A Prescription within any of the following contexts:

- PES provision of a Prescription to an EDS
- EPS request to create a Prescription instance in a PES repository.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Observation	Body Height	4437
	Body Weight	4436
Prescriber	Family Name	4420
	Given Names	4421
	Healthcare Provider Field of Practice	4425
	Healthcare Provider Qualification	4426
	Prescriber Identifier	4423
	Prescriber Number	4419
	Title	4422
Prescriber Organisation	Address	4430
	Prescriber Organisation Contact	4434
	Prescriber Organisation Identifier	4432
Prescription	Authority	4446
	Brand Substitution	4455
	Deliver to Location	4625
	Dosage	4449
	Expiry Date	4441
	Maximum Number of Repeats	4452
	Medication	4448
	Minimum Dispensing Interval	4453
	Note	4443
	PBS Benefit Category	4447
	Prescription Identifier	4442
	Quantity	4451
	Reason for Medication	4450
	Regulation 24	4454
	Safety Net Entitlement	4444
	Start Date	4440
	Therapeutic Substitution	4652
	CTG Eligible	5826
Subject of Care	Age	4416
	Australian Address	4417
	Date of Birth	4415
	Entitlement Card	4414
	Family Name	4407
	Given Names	4408
	Subject of Care Identifier	4406
	Title	4409
	Sex	5821

6.5 Request to Cancel Prescription

EPS request to cancel a Prescription.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
	Prescription Identifier	4442

6.6 Response to Request for Cancellation

This refers to the response to the original EPS request to cancel a Prescription. This message may contain alerts if cancellation of a dispensed, or dispense-in-progress, Prescription is attempted.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Request to Cancel Prescription	Request for Cancel Prescription Outcome	4657
	State Type	5225
	State Effective Date	5226
	State Effected By	5227
	State Effected By Contact	5228

6.7 Dispense Record

EDS message to create a record of a successful dispense of a medication on a Prescription.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Dispense Event	Dispense Event Date and Time	4471
	Dispense Event Identifier	4568
	Dispense Event Outcome	4480
	Note	4481
Dispense Record	Brand Substitution Performed	4475
	Dispense Record Identifier	4470
	Label Instruction	4476
	Maximum Number of Repeats	4478
	Medication	4472
	Quantity	4474
	Therapeutic Substitution Performed	4653
	CTG Eligible	5825
	Immediate Supply Required	5827
	Prescription Identifier	5822
Dispenser	Dispenser Identifier	4462
	Family Name	4459
	Given Name	4460
	Healthcare Provider Qualification	4463
	Title	4461
Dispenser Organisation	Address	4465
	Dispenser Organisation Approval Number	4511
	Dispenser Organisation Contact	4468
	Dispenser Organisation Identifier	4466
Subject of Care	Age	4416
	Australian Address	4417
	Date of Birth	4415
	Entitlement Card	4414
	Family Name	4407
	Given Names	4408
	Subject of Care Identifier	4406
	Title	4409
	Sex	5821

6.8 Reverse Dispense Record

EDS message to cancel an existing dispense record.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Dispense Record	Dispense Record Identifier	4470
	Prescription Identifier	5822

6.9 Dispense History

This is a logical concept which represents the entire grouped dispensing history for a Prescription. History comprises of dispense records that are created within the context of a successful dispense event.

Reversed dispense records are stored within the PES but are not offered to Dispensers as part of a dispense history.

The scope of a dispense history is limited to the successful dispense activity for a single Prescription.

The Dispense History message contents are referenced in the Dispense Record information flow (Section 6.7).

6.10 Request to Dispense

EDS request to a PES signaling the Dispenser's intention to dispense a Prescription.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Dispenser	Dispenser Identifier	4462
	Family Name	4459
	Given Name	4460
	Healthcare Provider Qualification	4463
	Title	4461
Dispenser Organisation	Address	4465
	Dispenser Organisation Approval Number	4511
	Dispenser Organisation Contact	4468
	Dispenser Organisation Identifier	4466

6.11 Response to Request to Dispense

This refers to the response to the original EDS request to dispense. When successful, the Prescription and any dispense history will be supplied to the EDS.

This flow provides the detail of any recognised concurrent dispense events (i.e. who, where, and when the event is logged).

Requirement Package	Requirement	Id
Request to Dispense	Request to Dispense Outcome	5221
	State Type	5222
	State Effective Date	5224
	State Effected By	5223
	State Effected By Contact	5229

6.12 Notification of Prescription

A Notification of Prescription within either of the following contexts:

- EPS Notification of Prescription to an AO
- AO Notification of Prescription to an EDS.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394

Requirement Package	Requirement	Id
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Prescriber	Family Name	4420
	Given Names	4421
	Healthcare Provider Field of Practice	4425
	Healthcare Provider Qualification	4426
	Prescriber Identifier	4423
	Prescriber Number	4419
	Title	4422
Prescriber Organisation	Address	4430
	Prescriber Organisation Contact	4434
	Prescriber Organisation Identifier	4432
Prescription	Dosage	4449
	Maximum Number of Repeats	4452
	Medication	4448
	Prescription Identifier	4442
	Quantity	4451
	Start Date	4440
	Prescription Identifier	4442
Subject of Care	Australian Address	4417
	Date of Birth	4415
	Family Name	4407
	Given Names	4408
	Subject of Care Identifier	4406
	Title	4409
	Sex	5821

6.13 Notification of Last Supply

A lightweight signal informing an EPS that the final supply for a Prescription has occurred.

Requirement Package	Requirement	Id
Clinical Information Metadata	Clinical Payload Identifier	4390
	Receiver Endpoint Identifier - Individual	4391
	Receiver Endpoint Identifier - Organisation	4392
	Creation Date and Time	4393
	Creator Digital Signature	4394
	Information Flow Correlation Identifier	4398
	Information Flow Type Identifier	4399
	Sender Endpoint Identifier - Individual	4395
	Sender Endpoint Identifier - Organisation	4396
	Sender Software	4623
Dispenser	Dispenser Identifier	4462
	Family Name	4459
	Given Name	4460
	Healthcare Provider Qualification	4463
	Title	4461
Dispenser Organisation	Address	4465
	Dispenser Organisation Approval Number	4511
	Dispenser Organisation Contact	4468
	Dispenser Organisation Identifier	4466

Requirement Package	Requirement	Id
Prescriber	Family Name	4420
	Given Names	4421
	Healthcare Provider Field of Practice	4425
	Healthcare Provider Qualification	4426
	Prescriber Identifier	4423
	Prescriber Number	4419
	Title	4422
Prescriber Organisation	Address	4430
	Prescriber Organisation Contact	4434
	Prescriber Organisation Identifier	4432
Prescription	Prescription Identifier	4442

7 Information Requirement

This section catalogues all the information concepts needed to resolve the exchange of Prescription and dispense information between Prescribers, Dispensers, and PES's. The mapping of these requirements to particular information flows is defined in the Information Flow View.

When formulating these requirements, the following requirements and artefacts were taken into consideration:

1. Identification of Prescription and associated dispense records
2. Business object state
3. Retrieval and access requirements
4. R1.0 Prescription and dispense record structured document templates
5. Existing Prescription information standards, e.g. Health Level 7 (HL7) V2.4
6. PBS Online information requirements
7. Paper Prescriptions and repeat authorisations

7.1 Clinical Information Metadata

This collection of attributes describes the clinical information with which it is associated. It is also necessary to enable exchange of clinical information between endpoints by providing placeholders for identifiers, etc.

004390 **Clinical Payload Identifier**

Within an ETP information flow, the clinical component may be uniquely identified within the context of its own PES. For example: a Prescription destined for storage in a specified PES will be assigned one of these identifiers.

004391 **Receiver Endpoint Identifier - Individual**

The nominated individual for which an ETP clinical payload is marked for attention.

004392 **Receiver Endpoint Identifier - Organisation**

The nominated organisation to which an ETP clinical payload is to be delivered.

004393 **Creation Date and Time**

Timestamp embodying the instantiation of a clinical payload.

004394 **Creator Digital Signature**

Digital representation of the act of signing a clinical payload, e.g. representation of the Prescriber's signing of a Prescription.

004395 **Sender Endpoint Identifier - Individual**

Identifies the individual who created an ETP clinical payload.

004396 **Sender Endpoint Identifier - Organisation**

Identifies the organisation that created an ETP clinical payload.

004623 **Sender Software**

Identifies the software manufacturer/vendor and version of

	the software used by the information flow sender. This is relevant for problem resolution.
004398	**Information Flow Correlation Identifier** Identifier designed to enable correlation of associated information flows between ETP endpoints that are being conducted in a transactional context, e.g. request to the Prescriber followed by response to a Dispenser. In this example the EDS needs to be able to resolve the inbound response against the initiating request.
004399	**Information Flow Type Identifier** ETP is realised with the coordinated use of a number of distinct information flows. Each flow is typed and uniquely identified.

7.2 Clinical Information

This concept embodies all clinical and business process concepts needed to enable the exchange of information in an ETP setting.

Clinical information is predominantly restricted to the definition of prescribing and dispensing related information.

7.2.1 Subject of Care

Embodies all attributes needed to describe a Subject of Care within ETP.

004406	**Subject of Care Identifier** A Subject of Care may be associated with and/or possess one or more identifiers. Identifiers may be unique, e.g. IHI. Equally, participating ETP systems are likely to carry their own locally unique Subject of Care identifiers in the form of medical record numbers, UR numbers, etc. ETP potentially needs the capability to provide for multiple Subject of Care identifiers. Identifiers may be typed and available for use in accordance with local ETP implementations. This approach is potentially needed to enable exchange of information between EPS and EDS instances and still enable local identification of objects in the absence of the existence of identifiers such as IHI's. Ultimately, ETP strives to elevate the importance of using IHI to resolve Subject of Care identification between systems.
004407	**Family Name** Subject of Care family name/surname/last name.
004408	**Given Name** Subject of Care given names.
004409	**Title** Subject of Care title resolved against a recognised standard terminology. Although exceptional, it is possible to possess multiple titles.
004414	**Entitlement Card** A Subject of Care may possess zero or many entitlement

cards. These substantiate a Subject of Care's entitlement and may influence the cost of supplied medication.

There are many types of entitlement. Cards are issued and administered by various Commonwealth government agencies. Cards may have start and expiry dates. Cards may have structured and known number formats, e.g. Medicare card.

Entitlement numbers are designed to be used for determining entitlement alone, and are not to be confused with Subject of Care identifiers and are not meant to be used for positive Subject of Care identification.

Known entitlement types in scope for ETP include:

- Commonwealth Seniors Health Card
- Department of Veterans' Affairs (DVA) File Number
- Health Care Card Number
- Medicare Number
- Pensioner Concession Card Number
- Repatriation Health Card Gold Number
- Repatriation Health Card Orange Number
- Repatriation Health Card White Number
- Reciprocal Healthcare Agreements (RHCA) Card Number
- Safety Net Concession Card Number
- Safety Net Entitlement Card Number.

004415 **Date of Birth**

The Subject of Care's date of birth.

004416 **Age**

In situations where a Subject of Care's precise date of birth is not known or cannot be ascertained, age may be specified.

004417 **Australian Address**

The Subject of Care's Australian residential address.

004424 **Healthcare Facility Location**

Subject of Care's location within a hospital, aged care facility, or other facility type. This may be required to resolve supply of medication for a Subject of Care and may contain details of wards, rooms, beds, etc. It may also be of use for non-residential stay and/or non-admitted patients, e.g. emergency department, day patients, etc.

005821 **Sex**

The gender of the Subject of Care.

7.2.2 Prescriber

Embodies all attributes needed to describe the individual who creates and signs a Prescription.

004419 **Prescriber Number**

Medicare Australia issued Prescriber number.

004420 **Family Name**

Prescriber family name/surname/last name.

004421 **Given Name**

Prescriber given names.

004422 **Title**

Prescriber title resolved against a recognised standard terminology. Although exceptional, it is possible to possess multiple titles.

004423 **Prescriber Identifier**

A Prescriber may be associated with and/or possess one or more identifiers.

Identifiers may be unique, e.g. HPI-I.

ETP potentially needs the capability to provide for multiple Prescriber identifiers. Identifiers may be typed and available for use in accordance with local ETP implementations. This approach is potentially needed to enable exchange of information between EPS and EDS instances and still enable local identification of objects in the absence of the existence of identifiers such as IHI's.

Ultimately, ETP strives to elevate the importance of using HPI-I to resolve Prescriber identification and authentication between systems.

004425 **Healthcare Provider Field of Practice**

A health care occupation that an individual provider identifies as being one in which they provide a significant amount of services, as represented by a code.

004426 **Healthcare Provider Qualification**

Representation of a Prescriber's medical qualifications which may be expressed using a pre-defined terminology, e.g. FRCPA

7.2.3 Prescriber Organisation

Contains attributes describing the organisation with which a Prescriber is associated at the time of creating and signing a Prescription.

004430 **Address**

The Prescriber organisation address.

004432 **Prescriber Organisation Identifier**

A Prescriber organisation may be associated with and/or possess one or more identifiers.

Identifiers may be unique, e.g. HPI-O.

Hospital Number is one type of prescription organisation identifier which is relevant for hospital associated Prescriptions and which is required transitionally until the use of HPI-O's become ubiquitous.

004434 **Prescriber Organisation Contact**

Relevant contact details to enable Dispenser-Prescriber verbal communication. Maybe resolved with a one or more telephone numbers which may also be qualified with pager numbers, etc.

7.2.4 Observation

Relevant clinical observations made and/or recorded at the time of creating a Prescription.

004436 **Body Weight**

The body weight of the Subject of Care. This metric may be qualified with a timestamp and refer to the Subject of Care's state when the measurement was taken, e.g. standing.

004437 **Body Height**

The body height of the Subject of Care. This metric may be qualified with a timestamp and refer to the Subject of Care's state when the measurement was taken, e.g. standing.

7.2.5 Prescription

An order to supply a medication for the treatment of a Subject of Care.

004440 **Start Date**

Timestamp representation of when a Prescription is created (generated & signed).

004441 **Expiry Date**

Timestamp representation of nominated expiry of a Prescription. May be based on policy or set in accordance with a treatment plan.

004442 **Prescription Identifier**

A Prescription may be associated with and/or possess one or more identifiers.

Identifiers may be unique, e.g. the DAK. Equally, participating systems (such as the EDS) are likely to carry their own locally unique Prescription identifiers.

For ETP, a Prescription must be assigned a unique identifier, but is known to also be identified by identifiers assigned by both EDS and EPS.

004443 **Note**

Provides for capture of Prescription related information not otherwise able to be resolved through the use of atomically defined concepts, e.g.:

- Prescriber instructions to the Dispenser

- Prescriber instructions to the Subject of Care regarding administration

004444 **Safety Net Entitlement**

Echoes a placeholder present on paper Prescriptions which captures a Prescriber's understanding or acknowledgment of a Subject of Care's safety net qualification.

004447 **PBS Benefit Category**

PBS Benefit category resolved against a value domain and which may govern PBS claiming behaviour and Subject of Care cost.

004448 **Medication**

The medicine/therapeutic good being prescribed expressed using either Australian Medicines Terminology (AMT) or as text in instances not covered within AMT.

It may also be necessary to identify the medication using other identifiers or terminologies. For example PBS/RPBS Item and Manufacturer code.

Prescription of vaccines for immunisation may have additional describing attributes which require the definition of additional requirements.

004449 **Dosage**

All relevant dosage information for the associated medication:

- Dose quantity
- Dose frequency
- Route instruction
- Administration site
- Administration device.

004450 **Reason for Medication**

Reason for medication or indication.

004451 **Quantity**

Total quantity of medication prescribed. Not to be confused with dose quantity.

004452 **Maximum Number of Repeats**

The number of times that a medication may be supplied. This count does not include original supply.

004453 **Minimum Dispensing Interval**

A unit of time that controls the minimum allowable lapsed time between repeat supplies of medication.

004454 **Regulation 24**

Represents the capability to supply multiple repeats concurrently.

004455 **Brand Substitution**

Indicates whether the brand name of the supplied drug may or may not align with the prescribed drug.

004652 **Therapeutic Substitution**

In hospital settings, indicates whether therapeutic substitution (i.e. the replacement of a pharmaceutical

substance with a drug with a different chemical composition) on a Prescription is permissible.

004446 **Authority**

This concept embodies attributes associated with authority Prescriptions.

- Authorities are issued at both Commonwealth and State level.

- Authority Issue is evidenced by a number that adheres to one or more formats.

- Authorities may be issued in relation to medical conditions/indications that is in turn evidenced on the Prescription

- Authorities are typed (streamlined, etc).

- Authorities may be bound to specific PBS medications

- Authorities may relate to other authorities already known to exist

- Authorities are issued at a particular date and time

- Authority may impose restrictions regarding medication quantity

In its simplest form, this may be resolved with an authority number. However, ETP may require capture and exchange of other relevant authority information.

004907 **Packing Instruction**

Dispensed medications may be packed so as to aid administration. Packing for Dose Administration Aids (DAA) is common in residential aged care and is also present in the community setting. This element provides for precise Prescriber instructions regarding DAA usage.

005826 **CTG Eligible**

Denotes if the Subject of Care is subject to the CTG scheme at the time of prescribe.

7.2.6 Dispenser

The individual healthcare provider that dispenses and supplies a medication.

004459 **Family Name**

Dispenser family name/surname/last name.

004460 **Given Name**

Dispenser given names.

004461 **Title**

Dispenser title resolved against a recognised standard terminology. Although exceptional, it is possible to possess multiple titles.

004462 **Dispenser Identifier**

A Dispenser may be associated with and/or possess one or more identifiers.

Identifiers may be unique, e.g. HPI-I.

ETP potentially needs the capability to provide for multiple Dispenser identifiers.

004463 **Healthcare Provider Qualification**

Representation of a Dispenser's medical qualifications which may be expressed using a pre-defined terminology, e.g. FRCPA

7.2.7 Dispenser Organisation

Contains attributes describing the organisation with which a Dispenser is associated.

004465 **Address**

The Prescriber organisation address. In respect of PBS, this address is that known to be associated with the approved supplier.

004466 **Dispenser Organisation Identifier**

A Dispenser organisation may be associated with and/or possess one or more identifiers, e.g. Hospital Provider Number.

Some identifiers will be unique, e.g. HPI-O.

HPI-O is the primary identifier used to resolve Dispenser organisation identification and authentication between systems.

004468 **Dispenser Organisation Contact**

Relevant contact details to enable Dispenser-Prescriber verbal communication. Maybe resolved with a one or more contact channels, e.g.:

- Telephone numbers which may also be qualified with pager numbers

- E-mail addresses.

004511 **Dispenser Organisation Approval Number**

Pharmacy Approval Number is one type of approval and is necessary for the supply of pharmaceutical benefits under PBS. Also known as the number allotted to the approved supplier under regulation 8A of the Commonwealth Of Australia National Health Act 1953 Pharmaceutical Benefits.

Other forms of approval may exist for hospital pharmacies and or approval to Dispenser by a medical practitioner.

7.2.8 Dispense Event

Embodies the Dispenser's effort to undertake dispense and supply of a prescribed medication. A dispense event, if successful, will be associated with a dispense record which contains the details of the dispensed medication.

004471 **Dispense Event Date and Time**

Timestamp associated with the dispensing activity occurring in a pharmacy.

004480 **Dispense Event Outcome**

Describes the outcome in terms of successful dispense of a

Prescriber medication, i.e.:

- Dispense successful

- Dispense unsuccessful.

004481 **Note**

Any qualifying information regarding a dispense event. It may describe things such as:

- Why a dispense failed, e.g. 'no dispense pending consultation with Prescriber'

- Any rationale for reversing a dispense event (e.g. 'Subject of Care did not return to collect medication and supply did not complete')

- Any rationale regarding deferral of dispense.

004568 **Dispense Event Identifier**

A unique identifier for a Dispense Event.

7.2.9 Dispense Record

This concept contains all the information associated with a dispense event in which a Prescription is successfully dispensed and supplied to a Subject of Care by a Dispenser.

004470 **Dispense Record Identifier**

A locally unique identifier for a Dispense Record.

004472 **Medication**

The medicine/therapeutic good being dispensed expressed using either Australian Medicines Terminology (AMT) or as text in instances not covered within AMT.

It may also be necessary to identify the medication using other identifiers or terminologies. For example PBS/RPBS Item and the Manufacturer code.

004473 **Dosage**

All relevant dosage information for the associated medication:

- Dose quantity

- Dose frequency

- Route instruction

- Dose instruction.

004474 **Quantity**

Total quantity of medication dispensed. Not to be confused with dose quantity.

004475 **Brand Substitution Performed**

Indicates whether the brand name of the supplied drug did or did not align with the prescribed drug at the time of dispensing. In this sense, Brand substitution in relation to a dispense record reflects the status of any substitution.

004476 **Label Instruction**

Relevant Dispenser instructions regarding:

- Storage instructions and conditions

- Special or cautionary directions associated with preparation or administration of dosages

- Action to be taken if a dose is missed

- Relevant drug/drug, drug/food, drug/alcohol interaction

- Directions for the correct use of medicine.

004478 **Maximum Number of Repeats**

The number of times that a medication may be supplied as known at the time of dispense. This count does not include original supply.

004653 **Therapeutic Substitution Performed**

Indicates whether medication was substituted at the time of dispensing.

005822 **Prescription Identifier**

The identifier of the Prescription that the dispense record belongs to.

005825 **CTG Eligible**

Specifies if the dispense is subject to the CTG scheme.

005827 **Immediate Supply Required**

Denotes if the medication was supplied to the Subject of Care based on Emergency Supply provisions.

7.2.10 Prescriber Instruction

Those distinct attributes associated with a Prescriber's instruction to supply without surrender of an original Prescription.

004489 **Prescriber Instruction Received Date and Time**

The date and time that the Prescriber instruction is received by a Dispenser.

004490 **Prescriber Instruction Reference**

Any reference or collection of references which identifies a distinct Prescriber instruction. For example: this may relate to entries on a medical chart.

004491 **Prescriber Instruction Content**

The actual instruction itself.

004492 **Prescriber Instruction Type**

Specifies the form the instruction was conveyed, e.g.:

- Unwritten

- Telephone

- Face-to-face

- Written

- Facsimile

- E-mail

- Medication chart item.

7.2.11 Request for Prescription

Specific message level concepts associated with a Dispenser requesting a Prescription and a Prescriber's response to the request.

004494 **Request for Prescription Outcome**

Possible outcomes arising from a request for Prescription, e.g.:

- Request satisfied/successful

- Request denied/rejected

- Request partly satisfied.

004495 **Request for Prescription Outcome Note**

Available to render reasons/rationale associated with rejecting or partially satisfying a request. May be equally used to provide any other useful information in a response.

004496 **Dispenser Note to Prescriber**

Available for a Dispenser to provide any other information helpful in qualifying a Request for Prescription.

7.2.12 Request to Cancel Prescription

The EPS generated request to cancel a Prescription contains the necessary access and authorisation metadata to enable the targeted PES to service the request. The act of cancellation is not constrained to the original Prescriber. Cancellation rights apply at the Prescriber's organisation level.

004657 **Request for Cancel Prescription Outcome**

Possible outcomes arising from a request to cancel Prescription, e.g.:

- Request satisfied/dispense in progress

- Request denied/Prescription already cancelled.

005225 **State Type**

The description of any state information relevant to a request to cancel, e.g. 'dispense in progress'.

005226 **State Effective Date**

In response to a request to cancel, existing state knowledge regarding the Prescription may be offered to the requesting Prescriber. The effective date/time of any such relevant state information will be included.

005227 **State Effected By**

In response to a request to cancel, existing state knowledge regarding the Prescription may be offered to the requesting Dispenser. The individual and organisation associated with any relevant state information will be included.

005228 **State Effected By Contact**

In response to a request to cancel, existing state knowledge regarding the Prescription may be offered to the requesting Dispenser. The individual and organisation associated with any relevant state information will be included and to facilitate any conversation between the requestor and the organisation responsible for the state change, relevant

contact details may be provided.

7.2.13 Request to Dispense

Specific message level concepts associated with a Dispenser signalling their intention to dispense to the PES.

Req No	005221	Priority	Unspecified

Request to Dispense Outcome

Possible outcomes arising from a request to dispense a Prescription, e.g.:

- Request denied/Prescription fully dispensed.

Req No	005222	Priority	Unspecified

State Effective Date

In response to a request to dispense, existing state knowledge regarding the Prescription may be offered to the requesting Dispenser. The effective date/time of any such relevant state information will be included.

Req No	005223	Priority	Unspecified

State Effected By

In response to a request to dispense, existing state knowledge regarding the Prescription may be offered to the requesting Dispenser. The individual and organisation associated with any relevant state information will be included.

Req No	005224	Priority	Unspecified

State Type

The description of any state information relevant to a request to dispense, e.g. 'dispense in progress'.

Req No	005229	Priority	Unspecified

State Effected By Contact

In response to a request to dispense, existing state knowledge regarding the Prescription may be offered to the requesting Dispenser. The individual and organisation associated with any relevant state information will be included and to facilitate any conversation between the requestor and the organisation responsible for the state change, relevant contact details may be provided.

Definitions

This section explains the specialised terminology used in this document.

Shortened Terms

This table lists abbreviations and acronyms.

Term	Description
AMT	Australian Medicines Terminology
AO	Agent Organisation
AOS	Agent Organisation System
DAA	Dose Administration Aid
DAK	Document Access Key
DVA	Department of Veteran's Affairs
eMM	Electronic Medications Management
EDS	Electronic Dispensing System
EPS	Electronic Prescribing System
ETP	Electronic Transfer of Prescription
HL7	Health Level Seven
HPI-I	Healthcare Provider Identifier - Individual
HPI-O	Healthcare Provider Identifier – Organisation
IHI	The Individual Health Identifier
NEHTA	National E-Health Transition Authority
PBS	Pharmaceutical Benefits Scheme
PES	Prescription Exchange Service
RHCA	Reciprocal Healthcare Agreements
RPBS	Repatriation Pharmaceutical Benefits Scheme

Glossary

This table lists specialised terminology.

Term	Description
Agent Organisation	The organisation representing the subject of care in facility managed care settings (e.g. residential care facilities, private hospitals).
Agent Organisation System	The system that the agent organisation uses to manage prescriptions.
Australian Medicines Terminology	NEHTA specifications that standardise the identification, naming, and describing of medicine information. The Australian Medicines Terminology (AMT) delivers standardised identification of brand (trade) products and equivalent generic medicines along with associated components that are supported through standard naming conventions that accurately describe medications.
Clinical Information System	Information computer technology used to store, manage and communicate healthcare information for healthcare providers and individuals, including the transfer of that information between information systems.
Department of Veteran's Affairs	Responsible for carrying out Government policy and implementing programs to fulfil Australia's obligations to war veterans and their dependants.
Dispense Record	Electronic record generated by a pharmacy information system that records medications dispensed or deferred.
Document Access Key	An alpha-numeric string that is used to identify and protect the set of clinical documents (Prescription and Dispense Records) for one prescription.
Dose Administration Aid	A device developed to assist patients in better managing their medicines by arranging their medicines into individual doses according to the prescribed dose schedule throughout the day, typically a compartmentalised box into which medicine doses can be placed; intended to help a subject of care to take the correct medicines at the correct times. They can also be designed to be tamper-evident, and can be either a unit-dose pack (i.e. one single type of medicine per compartment) or a multi-dose pack (i.e. different types of medicines per compartment).
e-Health	Use of information and communication technology to enable better healthcare outcomes.
Electronic Dispense Document	Electronic record generated by a pharmacy information system that records medications dispensed or deferred.
Electronic Dispensing System	A component of a clinical information system used to dispense medications.
Electronic Medications Management	Use of electronic systems to facilitate and enhance the communication of a prescription or medication order, aiding the choice, administration and supply of a medication through knowledge and decision support, and providing a robust audit trail for the entire medications use process.
Electronic Prescribing System	A component of a clinical information system used to prescribe medications.

Term	Description
e-Prescribing	Electronic prescribing is the process by which a prescription is electronically generated by a prescriber, authenticated with an electronic signature, securely transmitted to a Prescription Exchange Service for dispensing and supply, downloaded by a supplier, seamlessly integrated into the dispensing software and, in the case of Australian government subsidised prescriptions, is available to be electronically sent to Medicare Australia for claiming purposes. This definition does not preclude the use of paper-based processes to support electronic prescribing activity. Repeat and deferred supply authorisations which are uploaded to a Prescription Exchange Service by a supplier are not electronic authorisations, unless the original prescription was generated by a prescriber as an electronic prescription.
Electronic Prescription (or e-Prescription)	A prescription generated in an electronic manner and in a form approved by the relevant State, Territory or Commonwealth Departments of Health to convey a prescriber's authority to supply a medication.
Electronic Transfer of Prescription	A component of the EMM program of work that is concerned with the transfer of prescriptions, and its related information, in an electronic manner between participants.
Health Level Seven	A non-profit organisation involved in the construction and setting of Healthcare standards. "HL7" is also used to refer to some of the specific standards created by the organization (e.g., HL7 v2.x, v3.0, HL7 RIM).
Healthcare Provider Identifier - Individual	A 16 digit unique number used to identify individual providers who deliver healthcare in the Australian healthcare setting.
Healthcare Provider Identifier - Organisation	A 16 digit unique number used to identify organisations which deliver care in the Australian healthcare setting.
Individual	Persons who are, or could be, the subjects of care in the context of a healthcare event.
Individual Electronic Health Record	A secure, private electronic record of an individual's key health history and care information.
Individual Healthcare Identifier	A 16 digit unique number used to identify individuals who receive care in the Australian Healthcare system.
National Authentication Service for Health	A system for verifying the authenticity of patients and professionals for the purpose of ensuring the privacy of a person's electronic health data, while enabling secure access to the data by the person's authorised health providers.
National Clinical Terminology and Information Service	The National Clinical Terminology and Information Service (NCTIS), established by NEHTA, is developing the terminology and information products to support the requirements of e-health for the Australian healthcare community.
National E-Health Transition Authority	NEHTA Limited is a not-for-profit company established by the Australian, State and Territory governments to develop better ways of electronically collecting and securely exchanging health information.
Personal Health Record	A type of PCEHR that is initiated and maintained by the individual.
Personally Controlled Electronic Health Record	A secure, private electronic record of an individual's key health history and care information.

Term	Description
Pharmaceutical Benefits Scheme	A scheme set up under the National Health Act. Within Medicare Australia it is a system administered according to the Business Partnership Agreement with the Department of Health and Ageing (DoHA). Through the Pharmaceutical Benefits Scheme the Australian Government makes a range of necessary prescription medicines available at affordable prices to all Australian residents and those overseas visitors eligible under reciprocal Healthcare Agreements by paying part of the cost of the medicine to pharmacies.
Prescription	A request from a prescriber to dispense a therapeutic product. Describes the medication that the prescriber (a doctor in most cases) wants to be taken by the patient. It is input to the dispense process. Prescriptions are also used as input for the patient or the nurse on how to use the medication.
Prescription Exchange	An intermediary that stores Prescription and Dispense Records to allow them to be accessed by any authorised dispenser.
Prescription Exchange Service	An e-Health Service that provides Prescription Exchange functions.
Prescription Exchange Service - Dispense Record	A dispense record submitted to a Prescription Exchange Service (see Dispense Record).
Public Key Infrastructure	A set of hardware, software, people, policies, and procedures needed to create, manage, store, distribute, and revoke digital certificates.
Quality Use of Medicines	A central objective of the National Medicines Policy, applying to decisions about medicine use by individuals and decisions that affect the health of the population. Quality Use of Medicines (QUM) is one of the central objectives of Australia's National Medicines Policy. It means selecting management options wisely, choosing suitable medicines if a medicine is considered necessary, and using medicines safely and effectively. The definition of QUM applies equally to decisions about medicine use by individuals and decisions that affect the health of the population. Australia's National Medicines Policy is a cooperative endeavour to bring about better health outcomes for all Australians, focusing especially on people's access to, and wise use of, medicines. The term "medicine" includes prescription and non-prescription medicines, including complementary healthcare products.
Reciprocal Healthcare Agreements	The Australian Government has signed Reciprocal Health Care Agreements (RHCA) with the governments of the United Kingdom, Sweden, the Netherlands, Belgium, Finland, Norway, Malta and Italy which entitles visitors to limited subsidised health services for medically necessary treatment while visiting Australia.
Regulation 24	Government legislation that allows the Subject of Care to receive the supply of multiple repeat medication items concurrently. This regulation allows pharmacists to supply a pharmaceutical benefit and all of its repeats at the one time. The prescription must be endorsed by the doctor with the words 'Regulation 24' or 'Reg 24' if it is a medicine supplied under the PBS or 'hardship conditions apply' if it is being supplied under the RPBS.
Repatriation Pharmaceutical Benefits Scheme	The Repatriation Pharmaceutical Benefits Scheme (RPBS) provides a wide range of Pharmaceuticals and dressings at a concession rate for the treatment of eligible veterans, war widows/widowers, and their dependants.
Individual Health Identifier	A unique 16 digit number used to identify individuals who receive care in the Australian Healthcare system.

References

At the time of publication, the document versions indicated are valid. However, as documents listed below may be subject to revision, readers are encouraged to use the most recent versions of these documents.

Package Documents

The documents listed below are part of the suite delivered in the Discharge Summary Package.

Electronic Transfer of Prescription Package Documents			
[REF]	**Document Name**	**Publisher**	**Link**
[ETP-ES2010]	Electronic Transfer of Prescription Release 1.1 – Executive Summary	NEHTA 2010	http://www.nehta.gov.au/e-communications-in-practice/emedication-management
[ETP-RN2010]	Electronic Transfer of Prescription Release 1.1 – Release Note		
[ETP-CO2010]	Electronic Transfer of Prescription Release 1.1 – Concept of Operations		
[ETP-BR2010]	Electronic Transfer of Prescription Release 1.1 – Business Requirements Definition		
[ETP-DR2010]	Electronic Transfer of Prescription Release 1.1 – Detailed Requirements Definition		
[ETP-SS2010]	Electronic Transfer of Prescription Release 1.1 – Solution Specification		
[ETP-EP_SDT2010]	Electronic Transfer of Prescription Release 1.1 – e-Prescription Structured Document Template (SDT)		
[ETP-ED_SDT2010]	Electronic Transfer of Prescription Release 1.1 – Dispense Record Structured Document Template (SDT)		
[ETP-PR_SDT2010]	Electronic Transfer of Prescription Release 1.1 – Prescription Request Structured Document Template (SDT)		
[ETP-TSS2010]	Electronic Transfer of Prescription Release 1.1 – Technical Services Specification		
[ETP-EP_CDAIG2010]	Electronic Transfer of Prescription Release 1.1 – e-Prescription Clinical Document Architecture Implementation Guide		
[ETP-DR_CDAIG2010]	Electronic Transfer of Prescription Release 1.1 – Dispense Record Clinical Document Architecture Implementation Guide		
[ETP-PR_CDAIG2010]	Electronic Transfer of Prescription Release 1.1 – Prescription Request Clinical Document Architecture Implementation Guide		

Key Contacts

Contacts listed below will be able to clarify provide further information about the issues discussed in this document.

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