Australian Government
Australian Digital Health Agency

# e-Discharge Summary
# Business Requirements Specification

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# Document information

## Key information

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## Product or document version history

| Product or document version | Date | Release comments | |
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| 0.10 | 2008-09-22 | Don Lewis | Final internal version. |
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## Transition of terms

Certain terms used within the context of this document have changed. The table provides a clear comparison of the historical terms used in text and their current equivalents for your reference.

| Historical term | Current term |
|---|---|
| National eHealth Transition Authority (NEHTA) | The Australian Digital Health Agency (ADHA) |
| Personally controlled electronic health record (PCEHR) | My Health Record (MHR) |

# Table of contents

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# Preface

## Document purpose

This Business Requirements Specification (BRS) provides the requirements, business process models and use case descriptions of the Discharge Summary Release 1.1 package. This document is not intended as design requirements for the implementation of a discharge summary system but is present to add context for the discharge summary message specification. Furthermore, The BRS informs the development of the Core Information Components (CIC). The BRS and CIC are the basis for the technical documents in the package, the Solution Design and the Technical Service Specification.

The Discharge Summary package describes the specifications and guidelines for consideration by implementers when developing interoperable Discharge Summary solutions within the Australian healthcare community.

## Intended audience

This document is intended for all interested stakeholders including:

- early adopter hospitals and health departments in the process of planning, implementing or upgrading Discharge Summary systems;
- software vendors developing Discharge Summary system products;
- early adopter GP Desktop software vendors;
- senior managers and policy makers, clinical experts, Health Information Managers, IT operations and support teams, system integrators; and
- technical and non-technical readers.

## Document map

The following diagram represents the relationship between this document and others within the Discharge Summary package.

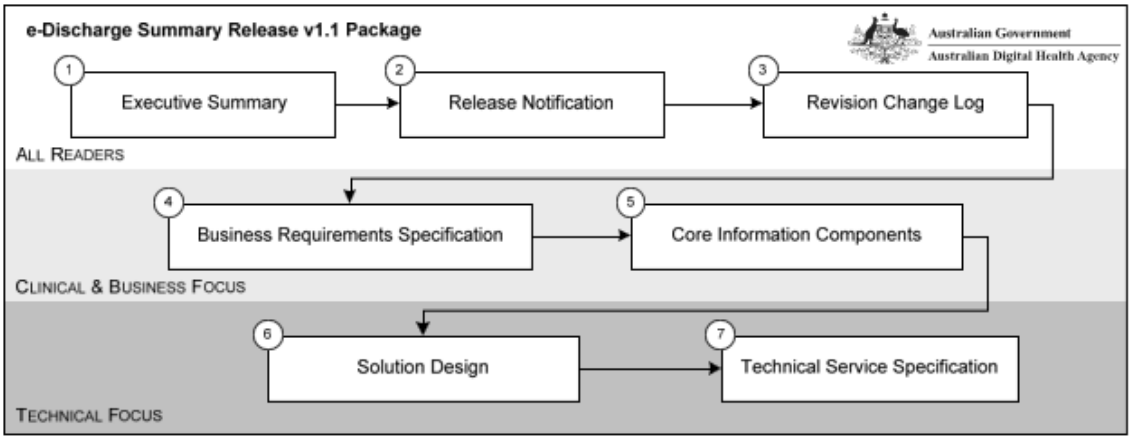


**Figure 1 e-Discharge Summary package document map**

The Solution Design defines Today, Tomorrow and Future solution states supported by the Business Requirements Specification. The Core Information Components document defines the

minimum set of data groups and elements that are recommended for implementation in any system that creates and transfers Discharge Summary information within Australia.

## Document status

This document is approved for release, and has been subject to internal/external consultation and review.

## Definitions, acronyms and abbreviations

For lists of definitions, acronyms and abbreviations, see the Definitions section at the end of the document, on pages 66-67.

## References and related documents

For a list of all referenced documents, see the References section at the end of the document, on page 68-69.

# 1 Introduction

## 1.1 Overview

This document describes the high-level requirements for the generation, distribution and receipt of discharge summaries for admitted patients, primarily from hospitals to general practitioners but potentially allowing the same content to be sent to other relevant recipients.

The requirements documented here are intended to inform the design of systems being planned and implemented over the period 2009 to 2012. Over this period, various components of the national infrastructure service (such as unique identifiers) will be introduced, as will SNOMED CT®[1] and its Australian extensions such as the Australian Medicines Terminology, which will assist in Discharge Summary exchange by providing supporting ancillary services.

Software deployed over this period will need to take into consideration the legacy environment as well as the uptake of the new infrastructure and standards. These specifications aim to provide high-level business requirements for a future of electronic discharge summaries.

## 1.2 Business need

There has been a significant change in the demand for health care services in Australia. An aging population and the increasing prevalence of chronic disease (i.e. persistent, typically non-communicative disease) and mental health disorders have placed increasing pressure on the health sector.

Currently, some 70% of healthcare costs are spent in the treatment of chronic diseases [NHPAC-NCDS2006], and spending as a percentage of GDP has increased from 6.3% in 1981/82 to 9.1% in 2007/08. [AIHW-AHS2009]

Effective communication between hospital and GPs is essential for continuity of care. This has become even more important with the increasing number of patients using ambulatory care services to continue their recovery at home, reducing their length of stay but increasing GPs need for relevant information.

Historically, investments in e-health have not had a significant impact on availability and quality of information due to:

- Lack of a common vision and agreement
- Lack of unique identifiers for patients and providers
- Lack of a common way to name medications, problems, adverse reactions, alerts, procedures, tests, etc.
- Inconsistent use of standards for structured discharge summaries, referrals, prescriptions, diagnostic results, etc.
- Too few or too many different locations for storing/accessing shared information

[1] SNOMED CT® is a registered trademark of the International Health Terminology Standards Development Organisation.

- Quality - completeness and correctness of information
- Education – guidelines on how to write a good discharge script
- Change Management (moving from ‘where we are now’ to ‘where we need to be’)
- Interoperability – inability to share
- Poor capacity for the handover of care.

Discharge summaries are essential for quality healthcare by improving the capacity for the handover of care between participating parties via the exchange of relevant information (including Continuity of Care and Transfer of Care instances).

Using standards-based technology, discharge summaries can be:

- Sent from Acute Care facilities
- Received in Primary Care facilities
- Accessed by health care providers
- Understood consistently
- Delivered faster, more accurately and reliably

## 1.3 Context

NEHTA’s aim is to provide leadership towards a national consensus on e- health, and to identify pathways for national adoption and implementation of its specifications and services. The expectation of the health sector is that these implementations will enable benefits in the areas of effectiveness and efficiency. Identification of the adoption and implementation pathways will highlight decision points for NEHTA and its key stakeholders, and provide a basis for common expectations across the sector.

As part of providing a solution foundation for the e-health community, it is NEHTA’s aim to provide clear direction for stakeholders on the end-to-end interoperation of the new specifications as they support clinical information flows across the health sector. This is proposed through the delivery of ‘packages’ of services that are part of the solution road map (see the Care Continuum Blueprint, below) leading to an interoperable e-health environment.

A package, as delivered by NEHTA, is made up of documents describing how NEHTA’s specifications are to be adopted and used in conjunction with one another, and to provide sufficient supporting material to facilitate adoption and implementation across the e-health community.

The priority domain package areas are:

- Pathology Results Reporting
- Discharge Summaries
- Medications Management
- Referrals

The clinical domain package areas have been tasked to provide sets of implementation-ready specifications for adoption by the health community.

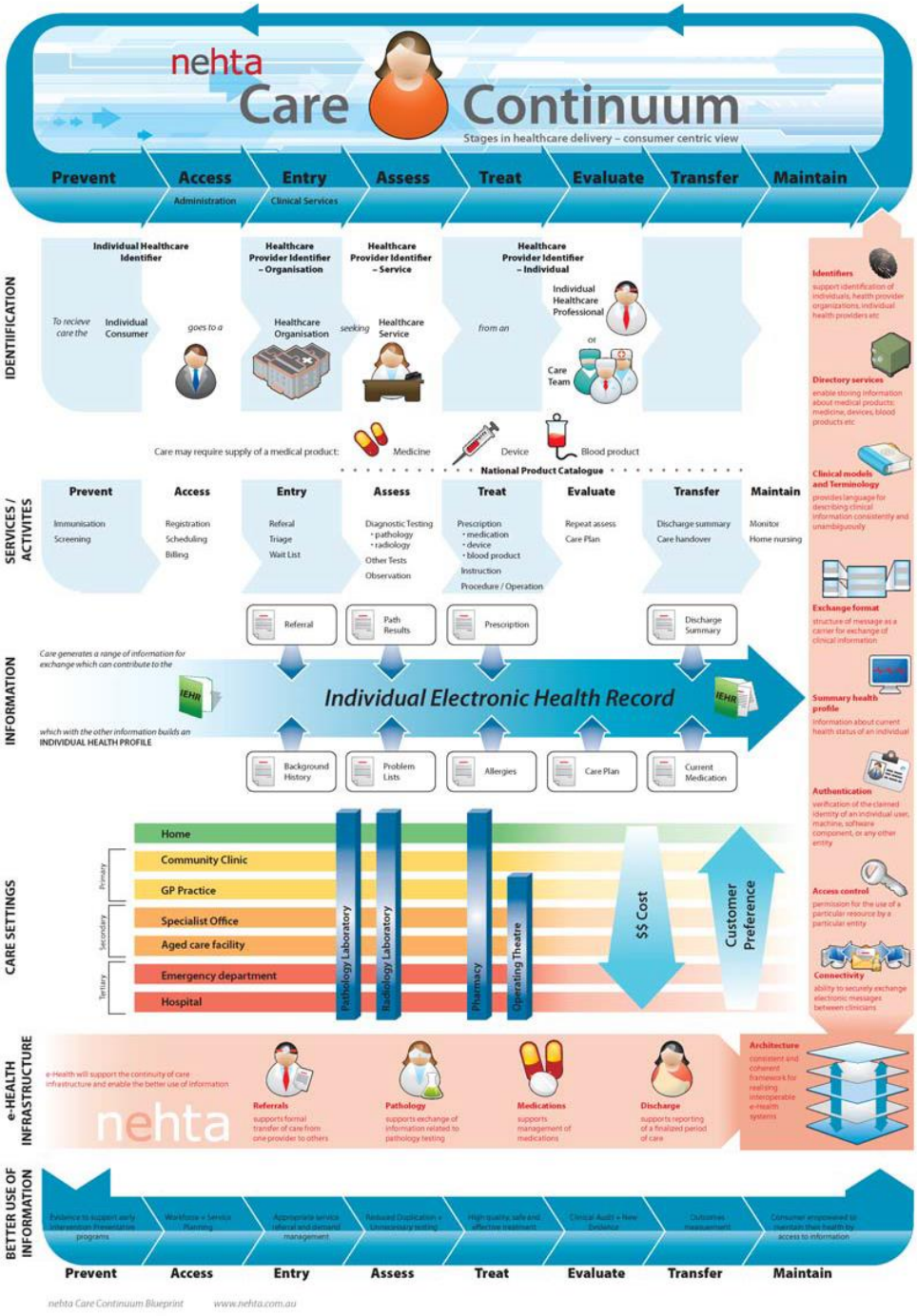


**Figure 2 Care continuum blueprint**

## 1.4 Discharge Summary definition

A Discharge Summary is currently defined as "A collection of information about events during care by a provider or organization" [AS4700.6(Int)2007].

It comprises a document produced during a patient's stay in hospital as either an admitted or non-admitted patient, and issued when or after a patient leaves the care of the hospital.

Its primary function is to support the 'continuity of care' as the patient returns to the care of their community healthcare provider(s). The primary recipients of the Discharge Summary are healthcare providers who were providing the patient care prior to the hospital stay, including:

- the patient's usual GP (or primary health service, such as an Aboriginal Community Controlled Health Service);
- the referring clinician (e.g. private specialist);
- community pharmacy;
- residential aged care facility where the patient usually resides; and
- other health professionals who will be involved in the patient's post- discharge care.

Within this primary function the purpose of the NEHTA Discharge Summary package is to:

- Assist and improve clinician-to-clinician communication.
- Enable system-to-system communication of semantically interoperable data.

The secondary functions of the Discharge Summary include:

- Providing summary information regarding an earlier admission on the re-presentation of the patient to acute care.
- Use by clinical coders when coding a patient record.
- Providing the patient with a record of their hospital admission and care.
- Use in a Personally Controlled Electronic Health Record (PCEHR), which could include national or local repositories to support coordinated care.

While it is not uncommon for paper hospital discharge summaries to also be used to support administrative and financial activities related to a patient's discharge, it is important to note that this electronic Discharge Summary content specification is not designed to support non-clinical uses and hence should not be used as such.

## 1.5 Discharge Summary scope

The scope of this release of the Discharge Summary package includes discharge summaries:

- Focused on a clinical Discharge Summary that supports continuity of patient care.
- Compiled upon the discharge of a patient from acute care into the community, primarily to be sent to a GP but potentially allowing the same content to be sent to other relevant recipients.
- Covering the complete length of stay in acute care, from initial admission to final discharge into the community.
- Including any current and relevant pre-existing clinical details recorded during the acute care episode.

- Including details of the patient, acute care facility and treating doctors, as required, to identify the participating parties.

The scope of this first release of the Discharge Summary package will exclude discharge summaries that:

- Include an attached 'Summary Health Profile', or considers their future implementation.
- Are functionally-specific to the transfer of care, as required by a 'Referral'.
- Are compiled upon the transfer of a patient between units within the acute care setting (i.e. Transfer Summary).
- Relate to patients being admitted for dialysis, same day radiotherapy and other procedures involving repetitive one day admissions.
- Concern administrative notifications (e.g. admission and discharge notifications).

In addition, this package release excludes in-development national infrastructure services.

## 1.6 Identification

The requirements in this document are uniquely identified using the following format:


**Figure 3 Identification requirement format**

The relevant requirement types are described in the following table:

| Requirement Type | Description | Acronym |
|---|---|---|
| Business | Discharge Summary Business Requirement | DSBR |
| Information | Discharge Summary Information Requirement | DSIR |
| Functional | Discharge Summary Functional Requirement | DSFR |
| Non-Functional | Discharge Summary Non-Functional Requirement | DSNR |

**Table 1 Identification requirement types**

# 2 Context

## 2.1 Introduction

This chapter provides the following contextual information:

- business context;
- high-level model of the end-to-end Discharge Summary process, as used to structure the use case descriptions in chapter 5; and
- mapping of the Discharge Summary process against supporting software applications.

## 2.2 Business context

### 2.2.1 Introduction

This section describes the health business context in Australia as it applies to the generation, distribution and receipt of electronic discharge summaries.

A recent Australian Institute of Health and Welfare report totals 756 public and 561 private hospitals in Australia who will potentially be a source, and some 22,589 (20,029 FTE) primary care practitioners who will likely be a recipient of a Discharge Summary. Furthermore, there are about 8.1 million hospital separations per year in Australia, of which around 57% would be same-day admissions [AIHW-AHS2010]. Note that many same-day admissions (e.g. patients who are admitted for dialysis, same day chemotherapy and other procedures involving repetitive same-day admissions) would not normally require a Discharge Summary.

### 2.2.2 Statutory and regulatory requirements

Unlike the pathology or medication sub-sectors, there are currently no specific national/state legislative or regulatory requirements for discharge summaries. However, a number of position statements from peak, state and national bodies are available (e.g. the Australian Medical Association), jurisdictions maintain their own policies, and individual hospitals and area health services possess more detailed policies.

The Australian Council on Healthcare Standards (ACHS) for hospital accreditation processes provides three standards related to discharge summaries:

- that service providers receive timely information about patients discharged into their care;
- the results of investigations follow the patient through the referral system and;
- that discharge information is discussed with the patient and a written Discharge Summary is provided to them.

Four associated performance measures are suggested within ACHS documentation [ACHS-EG2006]:

- Proportion of patients who receive a Discharge Summary at the time of discharge.
- Proportion of discharge summaries completed at the time of discharge.
- Proportion of patients who have a final Discharge Summary recorded in the medical record within X weeks of hospital discharge (i.e. where X weeks is determined by the organisation).
- Proportion of consumers who are satisfied with their discharge instructions (Not in scope for this release).

As such, the ACHS' existing standards provide no guidance as to the content of the Discharge Summary or the class of patients which should or should not trigger the production of a Discharge Summary.

### 2.2.3 Stakeholder interests

It is considered that the interests of each of the key stakeholder groups participating in the electronic generation, distribution and receipt of discharge summaries are as follows.

*Hospitals* (as organisations) want to:

- Reduce length of stay and 'bed-block' by streamlining patient discharge processes.
- Reduce re-admission rates of patients through reduction of adverse events.
- Increase the patient care in the community through better sharing of information with GPs and other community care providers.

However, they do not want to:

- Increase the time spent by hospital clinical staff on non-clinical or administrative duties.

*Hospital clinicians* want to:

- Ensure discharge summaries reach the correct recipient(s) and are sent securely, both within the hospital's systems and networks and across external networks.
- Avoid manual rewriting of information by electronically incorporating as much relevant data as possible from appropriate, existing sources, including both clinical and administrative information, and follow-up outpatient bookings.
- Be able to provide a copy of the Discharge Summary to the patient at time of discharge.

However, they do not want to:

- Spend more time preparing an electronic Discharge Summary than is currently spent preparing a handwritten summary.
- Accept tasks currently handled by administrative or support staff due to discharge process changes.

*Community GPs* (as organisations) want to:

- Reduce overhead administrative work involved when attending to a patient
- Improve the patient care in the community through better sharing of information with hospitals and other community care providers.

However, they do not want to:

- Increase the time spent by clinical staff on non-clinical or administrative duties.

*Community GPs* (as individuals) want to:

- Know that their patient was admitted and discharged, and why, before the patient's next presentation.
- Be assured of more complete and accurate information, especially for priority data (e.g. changes in medication, follow up action, etc.).
- See timely and reliable delivery (i.e. less time spent chasing missing/late discharge summaries).
- Be assured that the Discharge Summary is from the ostensible source organisation and has not been altered during transmission.
- Incorporate atomic data directly from the Discharge Summary into their own EMR without rekeying.

*However*, they do not want to:

- Accept tasks currently handled by administrative or support staff due to discharge process changes.
- Be obliged to recursively read long discharge summaries to identify relevant information.
- Find that data from the Discharge Summary is being incorporated into their EMR without explicit review and acceptance by the GP.

*Patients* want to:

- Ensure their nominated primary healthcare provider is in possession of all relevant information regarding their hospital stay upon their next presentation.
- Maintain control of which parties receive and have subsequent access to their personal information.
- Be confident that their information will be protected from inappropriate or unauthorised access.

However, they do not want to:

- Experience uncertainty about which medication they should be taking due to confusion or lack of clear information flow between the hospital clinician and the nominated primary healthcare provider.
- Repeat information they reasonably expect the nominated primary healthcare provider to already possess.
- Undergo unnecessary tests and investigations.

- Experience an adverse event, requiring another hospital visit (e.g. due to a test not being conducted).

## 2.3 Discharge Summary process

The following diagram provides a high-level logical overview of the process of generating, distributing and receiving a Discharge Summary. This view of the process is independent of the technology used in implementation.

### 2.3.1 Process overview

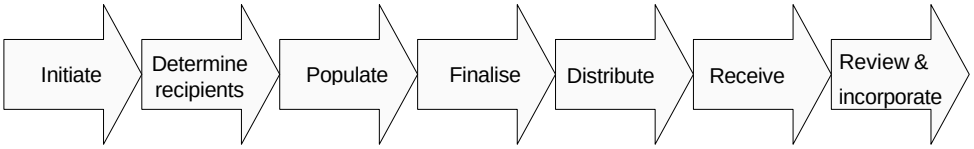


**Figure 4 High-level Discharge Summary process**

The steps in this process model are essentially sequential except that the *Determine Recipients* step can occur in parallel with the Initiate, Populate and Finalise steps and may occur multiple times as recipients are added to the distribution list.

### 2.3.2 Process details

*Initiate* Discharge Summary:

- Create Discharge Summary for patient
- Pre-populate Discharge Summary with relevant information (e.g. admission and referral data)
- Obtain patient consent (express or implied)

*Determine recipients*:

- Determine nominated and referring clinicians, and other recipients
- Follow-up where desired recipients are not already listed
- Pre-populate identifier and mode of communication

*Populate*:

- Review, revise and incorporate electronically-supplied data
- Manually enter any data which has been supplied non-electronically

*Finalise*:

- Issue interim Discharge Summary (if needed)
- Authorise release

*Distribute*:

- Manual

- Electronic
  - Organisation signs message
  - Determine end-point for electronic distribution
  - Encrypt
  - Send via nominated transmission mode (e.g. intermediary store and forward)
  - Process acknowledgment and failure messages

*Receive*:

- Decrypt
- Authenticate
- Send acknowledgment (or error) message

*Review and incorporate*:

- Associate with recipient work list and patient record
- Review and action
- Incorporate into patient record

## 2.4 Software applications

The following diagram shows the software applications which support the Discharge Summary process steps.

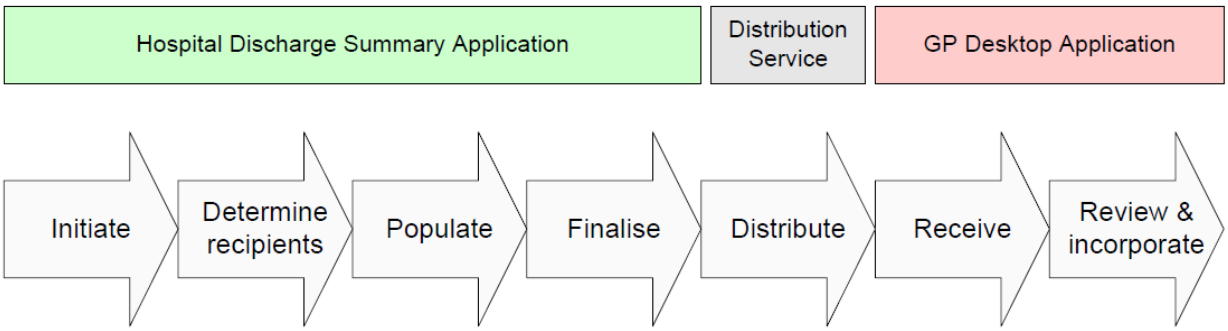


**Figure 5 Discharge Summary software applications**

Note that *Distribution Service* is not a single application. Instead, it is a logical grouping of services required for the electronic distribution of the Discharge Summary from the creating application to the receiving system. Some of the component services will reside within the hospital (e.g. determining the end point) while others (e.g. intermediary storage) will be provided by additional services external to both the hospital and the receiving clinician.

## 2.5 Roles and services

This section describes the logical roles and services involved in the generation, distribution and receipt of the electronic Discharge Summary.

### 2.5.1 Patient

An individual who is the subject of care. (Note that the terms 'client' and 'patient' are synonymous, but the usage of one or other of these terms tends to differ between different groups of clinicians. Clinicians working in a hospital setting and medical practitioners in most settings tend to use the term 'patient', whereas allied health professionals tend to use the term 'client'.)

### 2.5.2 Generator

A clinician who is involved in the generation process of a Discharge Summary. This role is responsible for:

- creating and populating the Discharge Summary;
- determining the recipients of the Discharge Summary;
- authorising the release of the Discharge Summary; and
- any manual distribution of the Discharge Summary.

| Role | Function |
|---|---|
| Author | A medical practitioner chiefly responsible for completing the Discharge Summary. (The common practice in public hospitals in Australia is that this is the current intern or Resident of the senior clinician responsible for the patient.) This role is also responsible for creating Discharge Summary for patients who would not usually be issued with them. |
| Contributor | A clinician who can complete specific sections of the Discharge Summary. This may include junior medical staff, a pharmacist who contributes a medication review section to the Discharge Summary and - in the case of a multi-disciplinary Discharge Summary - a nurse or allied health professional. |
| Authoriser | A clinician responsible for authorising the release and distribution of the Discharge Summary. Depending on the business practices of the particular hospital or unit the authoriser and author roles may be filled by the same person. |
| Administrator | An individual who manages the non-technical administration of the Discharge Summary systems and processes. This role is responsible for:<br>• cancelling Discharge Summary;<br>• following up on failed summary distributions; and<br>• liaising with directory maintenance function for maintaining provider details. |
| Distributor | An individual who distributes finalised discharge summaries. |
| Clinical Manager | A clinician responsible for the overall quality, completeness and timeliness of the discharge summaries. This may include setting local standards, establishing training, monitoring performance reports.<br>There may also be multiple individuals performing this role at various levels in the hospital (e.g. at an individual clinical unit, whole of hospital, etc). |

**Table 2 Discharge Summary generator roles (hospital)**

### 2.5.3 Recipient

A clinician who is involved in the receiving process of the Discharge Summary. This role is responsible for:

- receiving and processing the Discharge Summary and;
- providing continuity of care to the patient.

| Role | Function |
|---|---|
| Clinician | A medical practitioner responsible for:<br>• ensuring the Discharge Summary is associated with the correct patient<br>• reviewing the Discharge Summary and taking the appropriate clinical action. |
| Records Manager | An individual responsible for other non-clinical aspects of the Discharge Summary management process. |

**Table 3 Discharge Summary recipient roles**

### 2.5.4 Clinical Information system

The Clinical Information System category includes all the 'feeder' systems that could potentially contribute clinical information for incorporation within the Discharge Summary, including the:

- Pathology/Laboratory Information System
- Medical Imaging/Radiology Information System
- Surgical Theatre Information System
- Pharmacy Management System
- Emergency Department System
- Medical Measurement System
- Clinical Decision Support System
- Referral Management System
- Pre-Admission System

Depending on the configuration in use at a particular hospital, these systems may feed data directly to the Discharge Summary system, to an intermediary clinical data repository, or to an integrated clinical record information system which incorporates the Discharge Summary system.

### 2.5.5 Distribution service

The Distribution Service referred to here is a conceptual rather than physical entity and components of the service may be provided by the Discharge Summary Service, by other hospital applications and by third party intermediaries. From the originating and receiving clinician's perspectives it is a service that distributes the Discharge Summary securely, in a timely manner, between all relevant parties.

### 2.5.6 Authentication service

This service authenticates the various users via the provision of digital certificates that will allow the electronic signing and encryption of messages. These users may include Individual Healthcare Providers and Individual Healthcare Provider Organisations.

### 2.5.7 Discharge Summary service

The Discharge Summary Service performs all relevant functions such as summary creation, management and release.

### 2.5.8 Directory services

This section provides a business-focused description of the infrastructure services that will be required to support the successful delivery of a Discharge Summary. The services are listed as provider directory services and patient directory services. These are names of conceptual services and do not imply any particular architecture or organisation relating to the provision of services. In the long term, some of these services will be provided by the national infrastructure service, while in the short to medium term implementation phase, these services will need to be provided locally.

#### 2.5.8.1 Provider directory

The key business functions of a provider directory are:

- the association of an unambiguous identifier for a given provider organisation with a human-supplied description of that organisation;
- to locate/determine (via this identifier) the following information for a health provider organisation:
  - preferred mode of communication;
  - address for communication (i.e. fax number, postal address, web service address, email address); and
  - format(s) of communication.
- the provision of ‘certificates’ to enable/assure the secure transfer of electronic information between the two parties; and
- the association of an unambiguous identifier of an individual health care provider with a human-supplied description of that provider.

#### 2.5.8.2 Patient directory

The patient directory service must be able to determine the appropriate identifier to unambiguously identify the Discharge Summary subject within the recipient system. In the long term this will be the Individual Healthcare Identifier (IHI), but in the short to medium term there may be various local/regional identifiers in use.

# 3 High-level business process model

The following sections describe the high-level process involved in the generation, distribution and receipt of a Discharge Summary.

## 3.1 Discharge Summary generation

The following two-part business process model shows the high-level view of the generation and distribution of a Discharge Summary in a public hospital. This model caters for both electronic and manual processes. Note that this process will vary with individual hospitals and with the software in use.

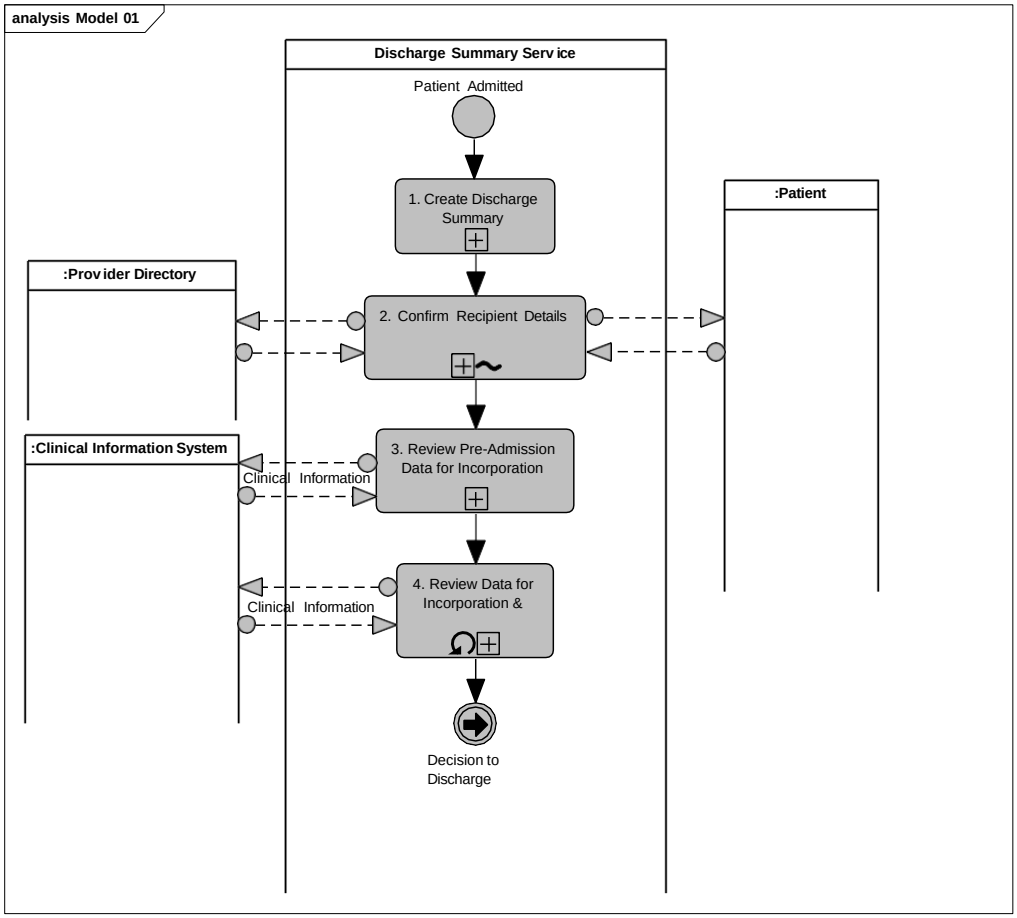


**Figure 6 Discharge Summary generation - part 1**

The first part of this model involves the following steps:

1. The Discharge Summary Service creates a new Discharge Summary (DS) for a Patient based on hospital/ward/unit specific rules.
2. The Author confirms the recipient details and obtains consent from the Patient.
3. The Author reviews pre-admission data for incorporation based on information from the Clinical Information System.

4. The Author/Contributor reviews data for incorporation and enters data based on information from the Clinical Information System.

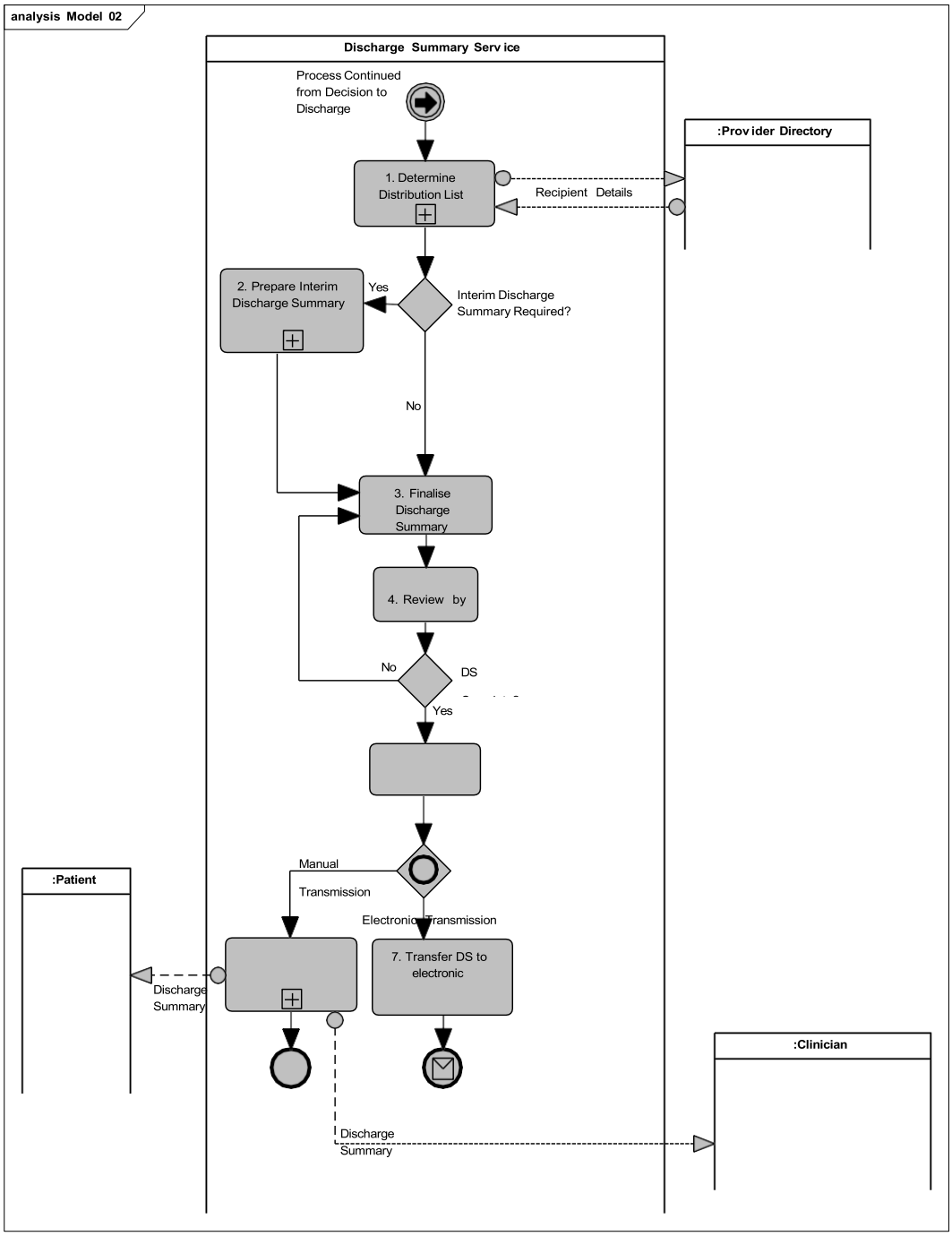


**Figure 7 Discharge Summary generation - part 2**

The second part of this model involves the following steps:

1. Once the decision to discharge a patient is taken, the Discharge Summary Service determines the Distribution List and confirms if the DS will need to be sent electronically or manually.

2. If an Interim Discharge Summary is required, the Discharge Summary Service prepares one for distribution. This Interim Discharge Summary can have multiple recipients including clinicians and patients.
3. The Author finalises the DS.
4. The DS is reviewed by the Authoriser; if incomplete, it is returned for finalising.
5. If the DS is complete, the Authoriser duly authorises it
6. Manual copies of the DS are printed and distributed as necessary.
7. If the DS is to be distributed electronically, it is transferred to the electronic distribution service.

## 3.2 Discharge Summary recipient

The following business process model shows the high-level view of the processing of an electronically-received Discharge Summary by a Recipient. Note that this process will vary with individual recipients and with the software in use.

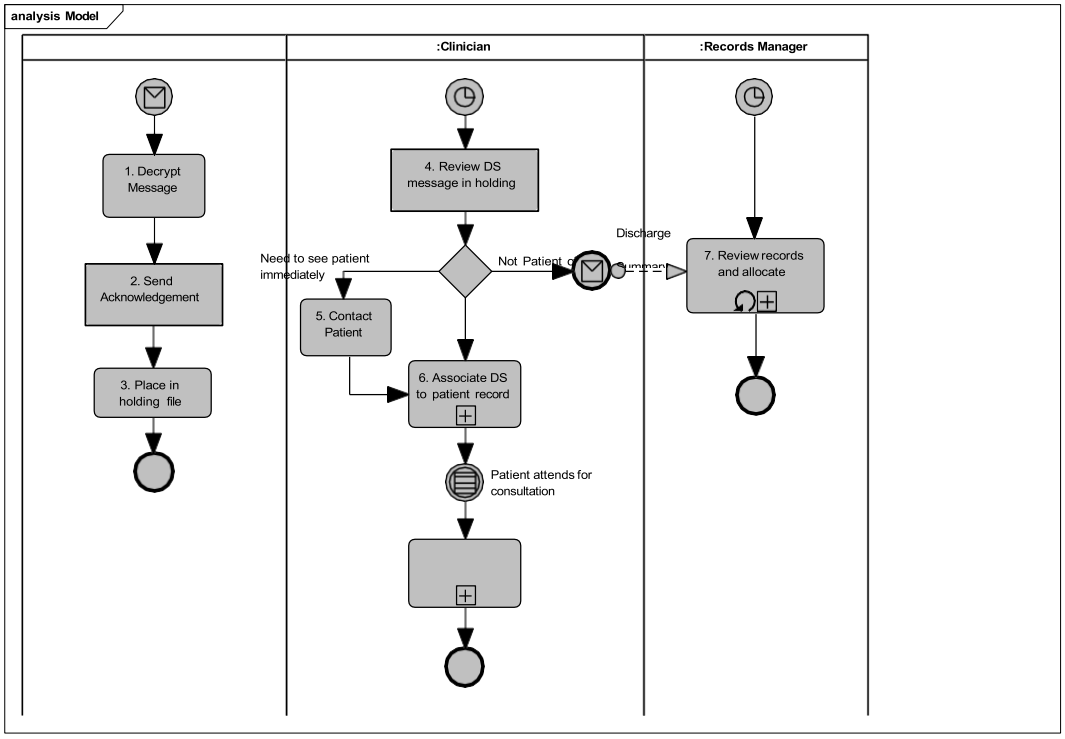


**Figure 8 Discharge Summary recipient**

This model involves the following steps:

1. The Discharge Summary Management System decrypts the DS message from the Discharge Summary Service.
2. The Discharge Summary Management System sends an Acknowledgement to the Generator.

3. The Discharge Summary Management System places the DS message in a holding file ready for the Clinician to view and process.
4. The Clinician opens the holding file and reviews the next DS
5. If the Clinician needs to see the patient immediately, he/she contacts the patient to schedule an appointment.
6. The Clinician associates the DS with the patient record.
7. If the Patient is not currently under the care of the Clinician, he/she forwards the DS message to the Records Manager who reviews the record and either allocates it to the correct clinician, if possible, or contacts the sending hospital.
8. When the Patient attends the consultation, the Clinician reviews and uses the DS.

# 4 Business requirements

This chapter describes the overarching business requirements for the generation, distribution, management and storage of electronic discharge summaries.

## 4.1 Privacy principles

NEHTA has developed an overarching privacy management framework to ensure that its initiatives comply with all relevant privacy law requirements and meet community expectations regarding 'privacy protection'.

Information privacy protection in Australia is legislated under various Commonwealth and State/Territory statutes. These govern the collection and handling of personal information, including personal health information, in the public and private sectors. Information privacy legislation seeks to provide individuals with some control over the collection and handling of their personal information by balancing competing public interests between the individual's right to privacy and the benefits of the free flow of information.

The shared sources of most Australian privacy legislation means it is possible to analyse and extract a common set of privacy principles for the handling of health information, as outlined in the table below. These common privacy principles, based on the National Privacy Principles (NPP) found in the *Privacy Act 1988* (Cwlth) [PA1988], seek to capture the major requirements found in the various privacy laws, administrative instructions and standards in place across Australia.

The following table outlines compliance statements aligned with the National Privacy Principles, useful at the beginning stages of a privacy analysis. This table is provided as a high level summary only; each organisation will be required to ensure its own practices comply with relevant privacy legislation.

| Privacy principles | | General requirements |
|---|---|---|
| 1. | Collection | Collection is necessary; and consent is obtained or collection authorised by or under law; and individuals are notified of the collection. |
| 2. | Use and Disclosure Primary Purpose | Any use and disclosure of information that is not directly related to the primary purpose for which is was collected, or within an individual's reasonable expectation, would require the patient's consent before it may be used and disclosed. |
| | Use and Disclosure Secondary Purpose | A patient's information should only be used and disclosed for the purpose for which it was collected unless:<br>The patient has consented, or<br>The secondary purpose is related to the primary purpose and a person would reasonably expect such use or disclosure, or circumstances arise relating to public interest such as law enforcement and public or individual health or safety. |

| Privacy principles | | General requirements |
|---|---|---|
| 3. | Data Quality | Health care providers must take reasonable steps to ensure the personal information they collect, use or disclose in relation to discharge summaries is accurate, complete and up to date. |
| 4. | Data Security | Health care providers must take reasonable steps to protect the personal information they hold from misuse and loss and from unauthorised access, modification and disclosure. |
| 5. | Openness | Health care providers should have a policy document that clearly sets out information handling practices and should make this available to anyone who asks. |
| 6. | Access and Correction | On request and excluding certain circumstances, health care providers and organisations should provide an individual access to their personal health information.<br>Upon request of the individual, and where reasonable, health information collected about an individual may be corrected. |
| 7. | Identifiers | Health service providers are prohibited from adopting Commonwealth identifiers except in prescribed circumstances. |
| 8. | Anonymity | Health service providers have obligations to make available to individuals the option of not identifying themselves when entering transactions with the provider, wherever this is lawful and practicable |
| 9. | Transborder Data Flows | Health service providers have obligations when transferring personal information outside Australia. Information should only be transferred to a recipient overseas in circumstances where the information will have appropriate protection. |

**Table 4: Privacy principles**

## 4.2 Availability of information

Logically, all relevant information from a patient's hospital episode should be available to clinicians involved in ongoing patient care.

The following tables list appropriate Discharge Summary Business Requirements (DSBR) and relevant descriptions.

### 4.2.1 Originating organisation

The following table details requirements relevant to organisations issuing discharge summaries.

| Number | Requirement |
|---|---|
| DSBR.1 | A Discharge Summary should be available to the relevant nominated GP(s) and referring clinician (if applicable) prior to the next presentation of the patient. |
| DSBR.2 | If the authorised copy of the Discharge Summary is not available prior to the patient's presentation to the GP, an interim Discharge Summary should be supplied to the GP and referring clinician. |
| DSBR.3 | The Discharge Summary should be supplied to the patient (or patient carer) prior to their leaving the hospital. If this is not possible, the Discharge Summary should be posted to the patient so that it will arrive prior to the patient's next presentation at their GP and referring clinician. |
| DSBR.4 | A final Discharge Summary must be provided to all recipients of an interim Discharge Summary. |
| DSBR.5 | When a revised/amended Discharge Summary is released, copies must be provided to all recipients of the original Discharge Summary. |
| DSBR.6 | If the receiving organisation cannot receive an electronic Discharge Summary, they should be posted or faxed a copy of the Discharge Summary. |

**Table 5 Requirements for originating organisation**

### 4.2.2 Receiving organisation

The following table details requirements relevant to organisations receiving discharge summaries.

| Number | Requirement |
|---|---|
| DSBR.7 | The receiving organisation must have policies and procedures to ensure that all received discharge summaries receive an initial review in a timely manner. |
| DSBR.8 | The receiving organisation must have policies and procedures to ensure the accurate association of a Discharge Summary with the correct patient, and to handle situations when the Discharge Summary does not appear to be for a current patient of the organisation. |

**Table 6 Requirements for receiving organisations**

### 4.2.3 Authorisation

The following table details requirements relevant to organisations issuing discharge summaries.

| Number | Requirement |
|---|---|
| DSBR.9 | Each organisation which is a source of discharge summaries must have a clear policy in-place regarding the authorised release of interim, final and amended discharge summaries. |

**Table 7: Authorisation requirements**

### 4.2.4 Records management

The following table details requirements for the management of records related to discharge summaries.

| Number | Requirement |
|---|---|
| DSBR.10 | A released Discharge Summary must clearly show who has authored the Discharge Summary and their communication details. |
| DSBR.11 | A released Discharge Summary must clearly show its status (e.g. Interim, Final, Amended). |
| DSBR.12 | The originating organisation must be able to determine who contributed each component of a Discharge Summary. (Note that this is an audit trail requirement within the originating system, not a requirement for the Discharge Summary message itself.) |
| DSBR.13 | Where data has been amended after data entry or electronic load, the system audit trail must show the data originally entered, who amended the data, and all other variations from the original. |
| DSBR.14 | Discharge summaries form part of the patient's clinical record and must be retained in accordance with the appropriate legislation and regulation. |
| DSBR.15 | Every amended or updated Discharge Summary must have an incremented version number. |

**Table 8: Records management requirements**

### 4.2.5 Use of a national infrastructure service

The following table details requirements for participation in Discharge Summary exchange.

| Number | Requirement |
|---|---|
| DSBR.16 | All originating and receiving organisations must be registered with, and be registered to use the national infrastructure services (such as HI Service and NASH) as it becomes available. |

**Table 9: Participation requirements**

### 4.2.6 Third party repositories

In the medium to long term, discharge summaries may be contributed to one or more electronic health records (EHR). These could include a national PCEHR, EHRs managed by commercial providers and local EHRs intended for particular purposes (e.g. supporting the delivery of coordinated managed care to patients with complex chronic conditions). The following table details requirements for third party participation in Discharge Summary exchange.

| Number | Requirement |
|---|---|
| DSBR.17 | Discharge summaries must only be supplied to EHRs if the patient has explicitly consented for the storage of their information in the EHR |
| DSBR.18 | Discharge summaries must only be supplied to EHRs if the healthcare organisation is registered with the directory services |

**Table 10 Requirements for third party repositories**

### 4.2.7 Conformance

The following table details conformance requirements for participation in Discharge Summary exchange.

| Number | Requirement |
|---|---|
| DSBR.19 | Vendors, organisations and jurisdictions may only state that their systems/processes conform to this specification if all components of the system, including any data transformations, have been independently assessed. |

**Table 11 Conformance requirements**

# 5 Use case descriptions

This chapter builds upon the process steps outlined in section 2.3 by providing detailed use case descriptions relevant to Discharge Summary generation, distribution and receipt.

## 5.1 Originating organisation

The following model shows the individual activities involved in creating, populating and releasing the Discharge Summary for electronic distribution. The subsequent sections describe these activities in detail.

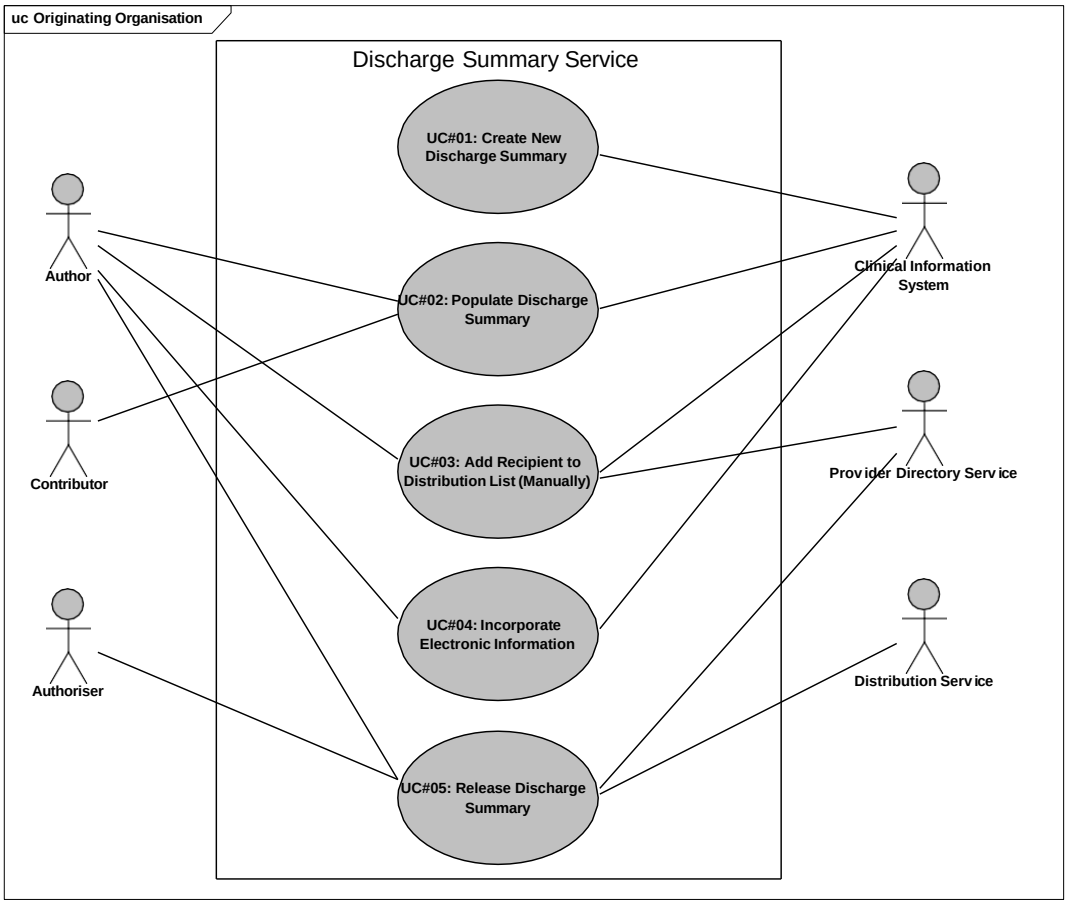


**Figure 9 Discharge Summary context model - originating organisation**

The following five use case tables provide detailed descriptions for the creation, population and release of discharge summaries.

### 5.1.1 Create new Discharge Summary

| Name | Create new Discharge Summary |
|---|---|
| # | 01 |
| Goal | Automatic creation of new pre-populated Discharge Summary. |

| Name | Create new Discharge Summary |
|---|---|
| Actors | Clinical Information System |
| Preconditions | Patient must be admitted to the hospital. |
| Triggers | System receives a notification of the patient admission. |
| Main path | 1. System determines using hospital/ward/unit specific rules whether patient requires a Discharge Summary.<br>2. Patient satisfies criteria and system creates Discharge Summary.<br>3. DS populated with any auto-inclusion information supplied from patient administration system and referral management system.<br>4. Discharge Summary added to worklist of author, authoriser and treating clinician. |
| Extensions | 2a. Patient does not satisfy criteria for creation of Discharge Summary:<br>2a1. Patient details retained until patient discharged in case Discharge Summary later created manually. |
| Post-condition | A new Discharge Summary created and pre-populated with administrative and referral information.<br>Discharge Summary added to the worklist of the appropriate clinicians. |
| Business rules | Rules determining whether a Discharge Summary will be automatically created are unit specific and maintained by the Administrator. |
| Technology notes | 2a1. The information needs to be available to populate a Discharge Summary if one is later created manually. It will depend on the technical architecture whether this is done through a local store or queried from a clinical data repository. |

**Table 12 Use case description - create new Discharge Summary**

### 5.1.2 Populate Discharge Summary

| Name | Populate Discharge Summary |
|---|---|
| # | 02 |
| Goal | To populate the Discharge Summary with clinical, administrative and distribution information. |
| Actors | Author Contributor<br>Clinical Information System |
| Preconditions | Patient must be admitted to the hospital.<br>Author allocated to be responsible for the particular patient's Discharge Summary. |

| Name | Populate Discharge Summary |
|---|---|
| Triggers | Author accesses Discharge Summary worklist which displays uncompleted discharge summaries. |
| Main path | 1. Author/Contributor opens Discharge Summary.<br>2. System displays and incorporates any auto-inclusion electronically supplied information.<br>3. System informs user that no other electronically received information available for incorporation.<br>4. Author/Contributor chooses to:<br>a) Add recipient to distribution list (UC#03)<br>b) Incorporate electronic information (UC#04)<br>c) Enter/edit manual data<br>d) Book follow up appointment<br>e) Release Discharge Summary (UC#05)<br>f) Exit Discharge Summary.<br>Author/Contributor continues options until choosing to release the Discharge Summary, or exit the Discharge Summary for later completion. |
| Extensions | 1a. Patient does not have Discharge Summary:<br>1a1. Author creates Discharge Summary.<br>1b: Discharge Summary for patient has been finalised and released:<br>1b1. Author requests re-opening of Discharge Summary with application (or re-opens Discharge Summary if has privileges) – note that this will create a new version of the Discharge Summary document when finalised and released<br>3a. Electronic supplied data available for review:<br>3a1. Screen alert set to show data available. |
| Post-condition | Discharge Summary populated. |

**Table 13 Use case description - populate Discharge Summary**

### 5.1.3 Add recipient to distribution list (manually)

| Name | Add recipient to distribution list (manually) |
|---|---|
| # | 03 |
| Goal | To manually add an unambiguously-identified recipient to the Discharge Summary distribution list, with details of the mode of communication. |
| Actors | Author<br>Distributor<br>Clinical Information System |

| Name | Add recipient to distribution list (manually) |
|---|---|
| | Provider Directory Service |
| Preconditions | A Discharge Summary has been commenced for the patient.<br>Details (i.e. organisational identifier) of all recipients not yet included in Discharge Summary. |
| Triggers | The author is viewing/editing the Discharge Summary for a patient. |
| Main path | 1. Author determines details of recipient clinicians.<br>2. Author enters the details of the recipient organisation and recipient clinician.<br>3. System lookup searches for the corresponding practice - clinician pair in the directory.<br>4. Author selects the linked pair from displayed possibilities.<br>5. The system adds the following details to the distribution list:<br>a) Organisation name and HPI-O<br>b) Preferred mode of communication<br>c) Clinician name and HPI-I.<br>Author repeats steps 1-5 until all recipients added. |
| Extensions | 1a. The names of receiving clinicians are provided from the patient administration or referral management system as text (i.e. without HPI-I or HPI-O identifiers).<br>1b. Patient does not have nominated primary healthcare provider:<br>1b1. Where possible, an appropriate GP is found that is willing to accept the patient<br>1b2. Author searches for this practice in directory and includes practice details (i.e. identifier) within message.<br>2a. Individual recipient clinician name not known:<br>2a1. Author enters organisation name<br>2a2. System displays matching organisations<br>2a3. Author selects recipient organisation from possibilities:<br>2a3a. Organisation not found:<br>• Notify directory maintenance<br>• Abort.<br>2a4. System adds organisation details to distribution list.<br>2b. Recipient organisation name not known:<br>2b1. Author enters clinician name<br>2b2. System displays matching clinicians with corresponding organisation details<br>2b3. Author selects clinician – organisation pair: |

| Name | Add recipient to distribution list (manually) |
|---|---|
| | 2b3a: No match found:<br>• Notify directory maintenance<br>• Abort.<br>2b4. System adds organisation – clinician details to distribution list<br>3a. Organisation-clinician pair not found:<br>3a1. Directory maintenance notified<br>3a2. System displays separately the matching clinicians and the matching organisations<br>3a3. Author selects recipient organisation from possibilities:<br>3a3a. Organisation not found:<br>• Notify directory maintenance<br>• Abort.<br>3a4. System adds recipient organisation identifier and details<br>3a5. Author selects recipient clinician from displayed possibilities<br>3a5a. Clinician not found:<br>• Notify directory maintenance<br>• Enter clinician name as text (i.e. without associated identifier)<br>3a6. System adds recipient clinician details.<br>5.2a. Author changes the preferred mode of communication due to certain restrictions or due to unavailability of that facility at the originating organisation. |
| Post-condition | The Discharge Summary instance contains the details of all recipients with their mode(s) of communication.<br>The directory maintenance service has been notified of any unlisted clinicians or organisations. |
| Business rules | The distribution list may not contain any external recipients in the case where the patient does not have a nominated primary healthcare provider or does not want the Discharge Summary to be sent to the nominated primary healthcare provider. In this case, a copy of the Discharge Summary will be handed to the patient.<br>The individual recipient (i.e. clinician) should be identified wherever possible, but there will be cases where the individual clinician name is not known in which case the details can be entered manually.<br>The association between a HPI-I and HPI-O is not enforced. That is, a Discharge Summary may be sent to a clinician and |

| Name | Add recipient to distribution list (manually) |
|---|---|
| | organisation pair when the provider directory service does not list the clinician as working at the organisation.<br>The Discharge Summary author needs to determine the distribution list at any time prior to releasing the Discharge Summary. |
| Technology and data variations | The assumption underlying step 1a in this use case is that the recipient names provided from the PAS and/or Referral Management System(s) may be free text or derived from a lookup of a different directory from that used by the distribution service. This problem will disappear as local directories in all participating systems mirror the HI services. |

**Table 14 Use case description - add recipient to distribution list (manually)**

### 5.1.4 Incorporate electronic information

| Name | Incorporate electronic information |
|---|---|
| # | 04 |
| Goal | To review and incorporate electronically supplied clinical data within a Discharge Summary instance. |
| Actors | Author<br>Clinical Information System |
| Preconditions | Discharge Summary for the patient must exist and have been pre-populated with basic information.<br>Electronically sourced information must be available for review and incorporation and flag set to show this. |
| Triggers | Author opens Discharge Summary being prepared. |
| Main path | 1. Clinical system(s) are queried and supply latest clinical information.<br>2. Author chooses to review available clinical information.<br>3. Author reviews each component of offered information:<br>a) Decides not to incorporate<br>b) Incorporates information<br>c) Incorporate information (and edits/truncates, if that option is made available)<br>d) Appends new record within block.<br>4. Author appends new information. |
| Extensions | None |
| Post-condition | Electronically supplied clinical information incorporated in Discharge Summary. |

| Name | Incorporate electronic information |
|---|---|
| Business rules | The author's capacity to select, edit and append information is dependent on the modifiability status of the field/block.<br>Information once presented and considered for incorporation will not be automatically re-presented unless amended and re- issued by the source system. |
| Notes | The supply of information requires that:<br>• either the source clinical systems support querying or they send information as it is generated to a clinical data repository that can be queried<br>• data is transformed as necessary, prior to the inclusion in the Discharge Summary, so as to align with NEHTA standards. |

**Table 15 Use case description - incorporate electronic information**

### 5.1.5 Release Discharge Summary

| Name | Release Discharge Summary |
|---|---|
| # | 05 |
| Goal | To ensure discharge has incorporated all available information, that the information is the most current and the Discharge Summary is authorised for release. |
| Actors | Author<br>Authoriser<br>Distribution Service<br>Provider Directory Service |
| Preconditions | A Discharge Summary has been commenced for the patient. |
| Triggers | The author chooses to release a Discharge Summary. |
| Main path | 1. Author selects whether Discharge Summary is interim or final.<br>2. System confirms no electronically supplied information yet to be reviewed.<br>3. Author reviews Discharge Summary to ensure it is complete/finalised.<br>4. Current system user is recorded in Discharge Summary as author.<br>5. Authoriser authorises the Discharge Summary<br>6. Current system user is recorded in Discharge Summary as authoriser.<br>7. Copies needed for manual distribution are printed.<br>8. Discharge Summary is released to Distribution Service. |
| Extensions | 2a. There is unreviewed new or revised information available: |

| Name | Release Discharge Summary |
|---|---|
| | 2a1. Incorporate electronic information (UC#04) |
| Post-condition | Authorised Discharge Summary printed for manual distribution.<br>Authorised Discharge Summary released to distribution service with distribution list of identified recipients. |
| Business Rules | Any recipients of an 'Interim' Discharge Summary are provided with the 'Final' version as soon as it is available.<br>Any recipients of a 'Final' Discharge Summary are provided with the 'Amended' version (if any) as soon as it is available. |

**Table 16 Use case description - release discharge summary**

## 5.2 Discharge Summary management

The following two use case tables cover:

- Management of the Discharge Summary process to ensure discharge summaries are completed in a timely manner and are followed up if not successfully received
- Distribution of a Discharge Summary, usually by the Medical Records Department, to recipients who were not on the original distribution list or who for some reason failed to receive an expected Discharge Summary.

### 5.2.1 Manage hospital work list

| Name | Manage hospital work list |
|---|---|
| # | 06 |
| Goal | To ensure that all discharge summaries are completed within the target time frame. |
| Actors | Administrator |
| Preconditions | Discharge Summary administrator role has been assigned. |
| Triggers | Administrator reviews the work list. |
| Main path | 1. No patient is flagged as needing attention.<br>2. Administrator completes review and closes list. |
| Extensions | 1a. Patient is flagged as having been admitted for a configurable period (e.g. more than three days) and Discharge Summary has not been created:<br>1a1. Manager contacts assigned author (e.g. by email, message, phone)<br>1a2. Discharge Summary removed from worklist.<br>1b. Patient is flagged as having been discharged a configurable period (e.g. more than 24 hours) and Discharge Summary has not been completed: |

| Name | Manage hospital work list |
|---|---|
| | 1b1. Manager contacts author (e.g. by email, message, phone)<br>1b2. Flag on Discharge Summary in list reset<br>1c. Discharge Summary is flagged as having failed during distribution:<br>1c1. Administrator determines if cause of failure is resolved and resends the Discharge Summary<br>1c1a. Cause of failure not resolved, and Discharge Summary is sent by manual alternative.<br>1d. Patient's Discharge Summary is automatically created but not required<br>1d1. Administrator cancels Discharge Summary. |
| Post-condition | Author has been contacted regarding overdue Discharge Summary.<br>Failed distribution/receipt has been investigated and Discharge Summary resent manually if necessary.<br>Patient flags on work list are reset to show the issue has been followed-up. |
| Business rules | Criteria for the flagging of discharge summaries as overdue are configurable for each unit by a user with administrator privileges. |
| Technology variation | There are a variety of ways this can be done, such as exception reporting. |

**Table 17 Use case description - manage hospital work list**

### 5.2.2 Forward Discharge Summary

| Name | Forward Discharge Summary |
|---|---|
| # | 07 |
| Goal | To provide a previously distributed Discharge Summary to a clinician who has not yet received one. |
| Actors | Distributor |
| Preconditions | When the patient presents to clinician, the practice has not yet received the Discharge Summary.<br>Discharge Summary has previously been finalised and distributed. |
| Triggers | Clinician Practice sends request to hospital for copy of a Discharge Summary and distributor verifies identity of requestor. |
| Main path | 1. Distributor accesses the hospital Discharge Summary service.<br>2. Distributor locates the previously released Discharge Summary. |

| Name | Forward Discharge Summary |
|---|---|
| | 3. Distributor modifies distribution list to<br>a) add recipient to distribution list<br>b) remove previous recipients from distribution list as required.<br>4. Release Discharge Summary and transfer to distribution service. |
| Post-condition | Discharge Summary has been transferred to distribution service.<br>Audit trail has been automatically updated to show the expanded distribution list. |
| Business rules | The distributor's access rights prevent modification of clinical content of Discharge Summary. |
| Notes | This use case only considers electronic forwarding. |

**Table 18 Use case description - forward discharge summary**

## 5.3 Discharge Summary distribution

The following use case table covers the standard distribution of discharge summaries to recipients.

### 5.3.1 Discharge Summary distribution

| Name | Discharge Summary distribution |
|---|---|
| # | 08 |
| Goal | To securely distribute (electronically via web services) the Discharge Summary to all listed recipients by their nominated mode of communication. |
| Actors | Discharge Summary Service |
| Preconditions | Discharge Summary contains at least one recipient in the distribution list who requires web services communication. |
| Triggers | Discharge Summary has been released for distribution from the Discharge Summary service (i.e. status of Interim, Final or Amended). |
| Main path | 1. The Discharge Summary service transfers the Discharge Summary to the Distribution Service.<br>2. The distribution service queries the provider directory service to determine the possible forms/formats in which the recipient can receive a Discharge Summary.<br>3. The 'best' mode supported by both the recipient application and the distribution service is determined together with the target 'address'. |

| Name | Discharge Summary distribution |
|---|---|
| | 4. The Discharge Summary content is structured in the appropriate form and format determined at step 3 (forms may vary for different recipients).<br>5. The formed Discharge Summary document is signed electronically by the distributing organisation.<br>6. The encryption key of the recipient organisation is retrieved.<br>7. The message is encrypted for the recipient organisation.<br>8. The message is sent to the appropriate destination.<br>Steps 2 to 8 are repeated for each recipient on the distribution list. |
| Extensions | 2a. If the recipient is not listed in the directory:<br>2a1. An error message is returned to the Discharge Summary Service<br>2a2. An error message is sent to the directory maintenance function<br>2a3. The Distribution Summary Service proceeds to next recipient on distribution list.<br>8a. If the recipient requires an intermediary storage:<br>8a1. The Distribution Summary Service sends an appropriate notification message. |
| Technology variations | This use case describes only web service distribution. In particular implementations the same service may also handle faxing (manual signing required in this case) or other forms of electronic distribution. |
| Post condition | Encrypted and signed Discharge Summary is sent to each recipient on the distribution list requiring electronic (web service) distribution. |

**Table 19 Discharge Summary distribution**

## 5.4 Receiving organisation

The following section defines a receiving organisation's use cases, relevant for electronically-supplied discharge summaries.

While the focus is on GP practice systems, similar use cases would apply for other recipients such as residential aged care facilities and specialists.

*Scope exclusions*: requirements for handling discharge summaries delivered by other means (e.g. fax, post, manual collection by the patient or patient's carer, etc.) are not covered here.

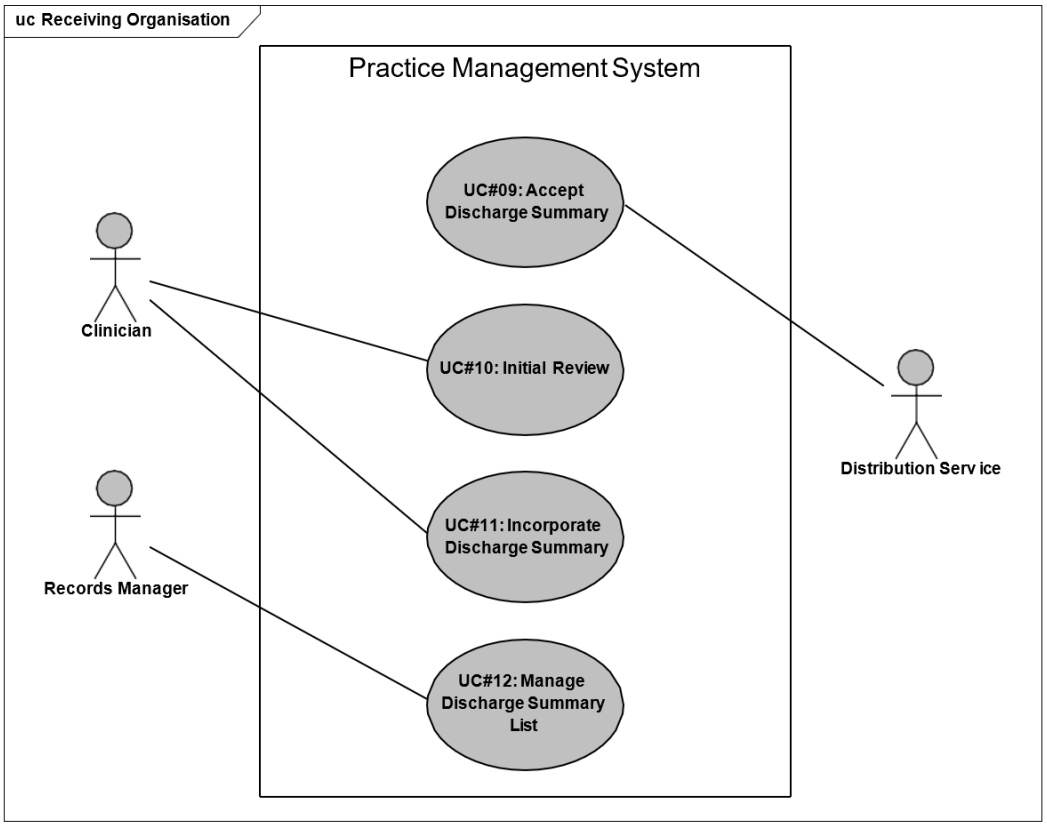


**Figure 10 Discharge Summary context model - receiving organisation**

### 5.4.1 Accept Discharge Summary

| Name | Accept Discharge Summary |
|---|---|
| # | 09 |
| Goal | To associate a received Discharge Summary with the correct clinician and set any system flags. |
| Actors | Distribution Service |
| Preconditions | Discharge Summary has been received by the practice.<br>Practice has privileges to query the Distribution Service. |
| Triggers | Discharge Summary has been received by the practice. |
| Main path | 1. Certificates are retrieved from the Distribution Service<br>2. Discharge Summary is decrypted<br>3. Authentication of discharge as originating, unchanged, from claimed organisation<br>4. Message processed:<br>a) Acknowledgement notification sent.<br>5. Message header information read |

| Name | Accept Discharge Summary |
|---|---|
| | 6. Recipient clinician named in Discharge Summary matched with Practice clinician list<br>7. Discharge Summary placed in 'in tray' of recipient clinician. |
| Extensions | 2a. Message fails to decrypt:<br>2a1. Failure notification sent<br>2a2. Records manager notified.<br>3a. Message fails to authenticate:<br>3a1. Failure notification sent<br>3a2. Records manager notified.<br>4a. Message fails to process:<br>4a1. Failure notification sent<br>4a2. Records manager notified.<br>6a. Recipient clinician not stated in Discharge Summary:<br>6a1. Discharge Summary flagged for exception list.<br>6b. Recipient clinician inadequately described or doesn't match current clinicians at practice:<br>6b1. Discharge Summary flagged for exception list. |
| Post-condition | Discharge Summary placed in appropriate 'in tray'/worklist. |
| Technical variation | The arrival of the Discharge Summary might be the result of an unsolicited distribution, or from a query subsequent to a notification. |
| Note: an Exception List is a report of discharge summaries that have failed normal processing as a result of being overdue for review, having an incorrect clinician, having no assigned clinician, or appearing to be associated with a person who is not a patient of the practice. | |

**Table 20 Use case description - accept discharge summary**

### 5.4.2 Initial review

| Name | Initial review |
|---|---|
| # | 10 |
| Goal | To ensure that all incoming discharge summaries are appropriately reviewed within a set time period after receipt. |
| Actors | Clinician |
| Preconditions | Incoming discharge summaries have been successfully decrypted.<br>Discharge summaries with no named recipient or with named recipients not available have been re-assigned by the records manager. |

| Name | Initial review |
|---|---|
| Triggers | Clinician reviews his/her list of unprocessed discharge summaries daily. |
| Main path | List of unprocessed discharge summaries is displayed.<br>1. Clinician selects an unprocessed Discharge Summary which features the clinician as the named recipient.<br>2. System matches the Discharge Summary with one or more patient records, either on the basis of an identifier or by demographic details such as firstname, surname and DOB.<br>3. Clinician reviews the Discharge Summary.<br>4. Clinician files the Discharge Summary within the appropriate patient record. |
| Extensions | 2a. There are multiple potential patient matches for the Discharge Summary:<br>2a1. The Clinician selects the correct match and files the Discharge Summary appropriately.<br>2b.There are no potential matches identified by the software, and either:<br>2b1. The Clinician manually searches and links the Discharge Summary to a patient record, or<br>2b2. The Clinician creates a new patient record using the demographic details in the Discharge Summary, or<br>2b3. The Clinician flags the patient in the exception list for processing by the records manager.<br>2c. The patient name/identifier pair in the message does not match the pair in the Practice Management System:<br>2c1. Record is flagged for anomaly resolution when patient next presents.<br>2d. The patient is matched on demographic information (i.e. patient record does not contain an IHI but the Discharge Summary does).<br>2d1. IHI is copied from the Discharge Summary to the patient record.<br>3a The Discharge Summary requires some action or follow-up on the part of the clinician:<br>3a1. Clinician initiates patient recall, either by phone or letter, or takes other appropriate action. |
| Post-condition | Discharge Summary is removed from the clinician's unprocessed list.<br>Discharge Summary has been attached to the appropriate patient record.<br>Recall notification or other immediate follow up actions if required. |

**Table 21 Use case description - initial review**

### 5.4.3 Incorporate Discharge Summary

| Name | Incorporate Discharge Summary |
|---|---|
| # | 11 |
| Goal | Review the clinician Discharge Summary and incorporate (atomic) data elements as deemed appropriate by the GP. |
| Actors | Clinician |
| Preconditions | Patient had a hospital episode of care for which a Discharge Summary has been received. |
| Triggers | Patient presents at practice for consultation. |
| Main path | 1. Clinician opens patient record.<br>2. Front screen of record shows there is an unprocessed Discharge Summary.<br>3. Clinician selects Discharge Summary.<br>4. System overwrites earlier versions of a Discharge Summary set with an updated version, if it is available.<br>5. System presentation of Discharge Summary emphasises the key components plus those requiring clinician follow up.<br>6. Clinician selects elements to be incorporated as atomic data. |
| Extensions | 2a: Discharge Summary not present in patient record<br>2a1. Clinician finds Discharge Summary in list of unallocated discharge summaries<br>2a2. Clinician fails to find Discharge Summary:<br>Hospital is contacted to (re)supply Discharge Summary.<br>6a. Data to be incorporated is inconsistent with existing data:<br>6a1. GP resolves conflict and incorporates data, or<br>6a2.1. Incorporation rejected<br>6a2.2. Discharge Summary author contacted. |
| Post-condition | Discharge Summary has been reviewed and appropriate elements incorporated as atomic data within the system record and stored as a complete document.<br>Anomalies and queries have been raised with the hospital. |
| Technological and data variations | 5. This presentation may be performed by the:<br>• Data-driven logic within the receiving system;<br>• Metadata flags within the Discharge Summary body; or<br>• 'Style sheet' supplied with the Discharge Summary. |

**Table 22 Use case description - incorporate discharge summary**

### 5.4.4 Manage Discharge Summary list

| Name | Manage Discharge Summary list |
|---|---|
| # | 12 |
| Goal | To resolve all discharge summaries in the exception list. |
| Actors | Records Manager |
| Preconditions | Exception list has been populated. |
| Triggers | Records Manager reviews the exception list regularly. |
| Main path | 1. Records Manager opens exception list.<br>2. Records manager selects an unprocessed Discharge Summary exception.<br>Each flagged Discharge Summary is one of the listed types 3-5 below and is processed as shown.<br>3. Patient appears not to be patient of practice:<br>a) Records manager searches for patient manually and locates record.<br>b) Records manager allocates patient to appropriate clinician.<br>4. Individual clinician not specified in summary or specified clinician appears not to be current clinician of practice:<br>a) Records manager searches for and locates clinician manually.<br>b) Records manager allocates patient to the appropriate clinician.<br>5. Discharge Summary is overdue for initial review (allowable time period for review configurable):<br>a) Records manager reviews Discharge Summary.<br>b) Records manager contacts responsible clinician or reassigns Discharge Summary.<br>The records manager processes each flagged Discharge Summary. |
| Extensions | 3.1a: Patient cannot be found in the local system:<br>3.1a1. Records manager contacts the sending hospital.<br>3.1a2. Discharge Summary is deleted following notification to hospital.<br>4.1a: Clinician cannot be found in the local system:<br>4.1a1. Records manager contacts the sending hospital.<br>4.1a2. Discharge Summary is deleted following notification to hospital. |
| Post-condition | All discharge summaries in exception list have been processed. |

| Name | Manage Discharge Summary list |
|---|---|
| Technology notes | 5. Various technological extensions are possible, such as alerting the responsible clinician by pager or SMS message in cases of urgent or clinically-privileged discharge summaries. |
| Note: an Exception List is a report of discharge summaries that have failed normal processing as a result of being overdue for review, having an incorrect clinician, having no assigned clinician, or appearing to be associated with a person who is not a patient of the practice. | |

**Table 23 Use case description - manage Discharge Summary list**

# 6 Generating system

## 6.1 Introduction

This chapter lists the requirements (functional, non-functional and information) for the originating Discharge Summary based on the use case descriptions from chapter 5, and should be read in parallel with that chapter.

## 6.2 Functional requirements

| Number | Use Case | Requirement |
|---|---|---|
| DSFR.1 | 1. | System must be able to create a Discharge Summary for a patient using organisation-specific (i.e. hospital/ward/unit) business rules applied to information supplied in a notification from the patient administration system and other system(s). |
| DSFR.2 | 1. | On creation of a Discharge Summary, the system must add the Discharge Summary to all treating clinician's worklists based on the information supplied in the notification from the patient administration system. |
| DSFR.3 | 1. | A Discharge Summary must be able to be created manually for a patient where a Discharge Summary was not automatically created. Such a manually created Discharge Summary must be populated with the same information that an automatically created Discharge Summary would be populated with. |
| DSFR.4 | 2. | System must automatically incorporate any supplied information where the target field is classified as auto-inclusion. |
| DSFR.5 | 3. | The author must be able to submit lookup provider names (organisation and individual) to the provider directory, either entered manually or sourced electronically from the administration or referral systems. |
| DSFR.6 | 3. | The provider lookup must allow searching by organisation, individual or combination of the two. |
| DSFR.7 | 4 | The system must enable the user to incorporate, edit, and truncate electronically supplied data according to the data modifiability classification of the field. (This is discussed in detail in section 6.4). |
| DSFR.8 | 4. | The system must enable the user to append new records in a data block depending on the modifiability classification of the block. |
| DSFR.9 | 5. | Discharge Summary must be electronically 'signed' by the generating organisation when the authoriser releases the Discharge Summary for distribution. |

| Number | Use Case | Requirement |
|---|---|---|
| DSFR.10 | 6. | The system must be able to display a worklist of all open discharge summaries associated with a clinician.<br>(Note that more than one clinician may be associated with a Discharge Summary instance). |
| DSFR.11 | 6. | The system must be able to display a list of discharge summaries that are overdue (i.e. have not been finalised within a set period of the patient's discharge). |
| DSFR.12 | 6. | The system must be able to display a list of discharge summaries whose transmission has failed, or for which a successful acknowledgment has not been received within a set period after transmission. |

**Table 24 Functional requirements - generating system**

## 6.3 Non-functional requirements

### 6.3.1 Security

| Number | Requirement |
|---|---|
| DSNR.1 | The system must support role-based privileges for authorising the release of an interim, final and amended Discharge Summary. |
| DSNR.2 | The system must support role based allocation of privileges for accessing, entering and modifying data. |

**Table 25 Non-functional requirements - Security**

### 6.3.2 Authorisation and authentication

| Number | Requirement |
|---|---|
| DSNR.3 | The originating organisation must sign the Discharge Summary so that all recipients can authenticate the identity of the originating organisation. |
| DSNR.4 | The names of the authorising and authoring clinicians included in a Discharge Summary must be securely and unambiguously linked, through the Discharge Summary service, to the identities who performed the authorising and authoring. |

**Table 26 Non-functional requirements - authorisation and authentication**

### 6.3.3 Usability

| Number | Requirement |
|---|---|
| DSNR.5 | In populating the distribution list, the provider directory services must appear as a single coherent service to the user of the discharge application. |
| DSNR.6 | Only clinical data with a release status of Final or Amended should be offered for inclusion into the Discharge Summary. |
| DSNR.7 | Inclusions, exclusions and modifications made to electronically-supplied data at the source of that data must be preserved during the update/refresh of such data within the Discharge Summary application. |
| DSNR.8 | Electronically-supplied information offered for review/inclusion once in the Discharge Summary should not be automatically re-presented to the author unless changed in the source system. |

**Table 27 Non-functional requirements - usability**

## 6.4 Information requirements - data capture

As clinical and administrative systems within hospitals mature, an increasing amount of the data populating discharge summaries will be supplied electronically. The following diagram illustrates the possible data flows into the Discharge Summary service. In practice these flows may occur directly between the source system and the Discharge Summary service, or via an intermediary repository.

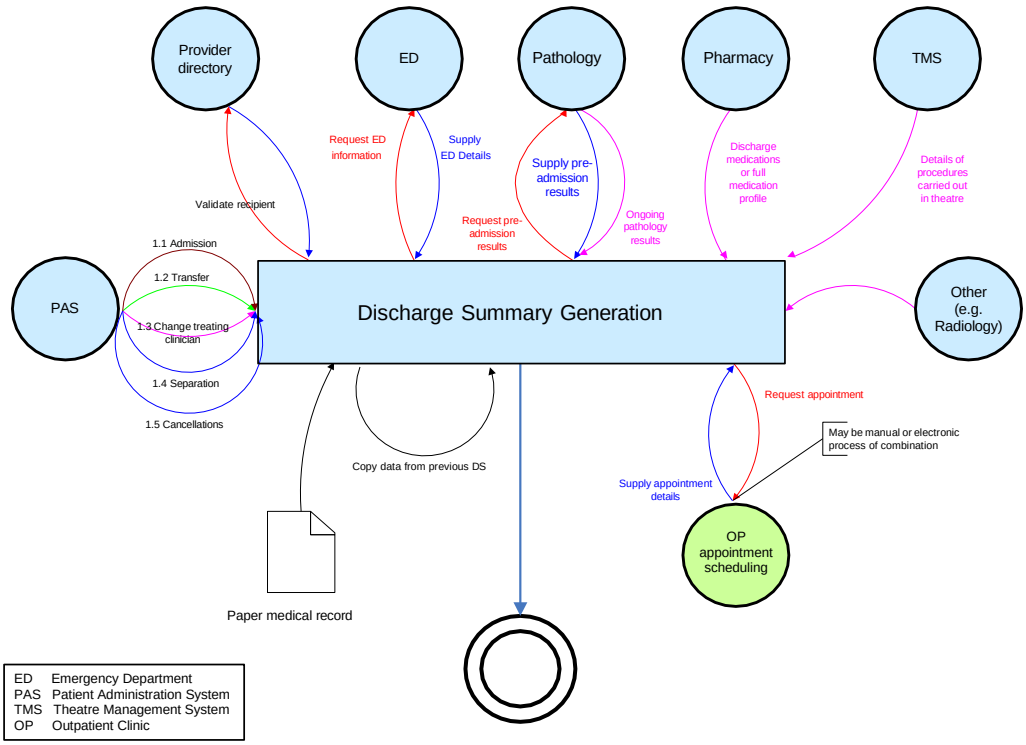


**Figure 11 Hospital data flows**

Data being supplied electronically to the Discharge Summary should be classified according to how it can be edited by the Discharge Summary author. Such editing is an electronic version of the current manual summarising, but is controlled by explicitly applying a modifiability classification. The following table provides an example classification.

| Classification | Description | Example |
|---|---|---|
| Auto-inclusion | The data cannot be edited or changed in any way.<br>Data will be automatically included in the Discharge Summary. | Date of admission from the patient administration system.<br>Name of surgical procedure performed on patient, supplied from the theatre management system. |
| Selectable | Author can choose to include particular input or not, but cannot modify it in any way. | Pathology reports where author can select which report(s) to include in the Discharge Summary. |
| Editable | Data can be summarised freely (i.e. edited and truncated). The application audit trail will show the changes and who made the changes. The Discharge Summary metadata will indicate that the field has been modified and further details are available. | Textual description in a theatre report. |

**Table 28 Example data modifiability classification**

### 6.4.1 Data Capture

| Number | Requirement |
|---|---|
| DSIR.1 | Within the Discharge Summary service, each field where the data is electronically sourced from a contributing application must have a known modifiability status as per the preceding table. |
| DSIR.2 | Within the Discharge Summary service, each field where the data is electronically sourced from a contributing application should be subject to the identical constraints of the corresponding fields within that source application. |
| DSIR.3 | All relevant clinical data (related to sections of the Discharge Summary) generated during a patient's Emergency Department episode, or pre-admission clinic immediately prior to the admission, should be available to the author for inclusion within the Discharge Summary. |
| DSIR.4 | All relevant clinical data (related to sections of the Discharge Summary) generated during a patient's admitted episode should be available to the author for inclusion within the Discharge Summary. |

**Table 29 Information requirements - data capture**

# 7 Discharge Summary document

This chapter describes the Discharge Summary message requirements. It touches only briefly on the clinical information content of the Discharge Summary as this is fully defined within the Core Information Components document [DS-CIC2010]. Instead, this chapter focuses on the header and administrative information requirements of the Discharge Summary message that are necessary for the secure delivery to the correct recipient, and to support business processes at the recipient organisation.

## 7.1 Discharge Summary message

As noted previously, the following requirements relate to both the header and the Discharge Summary message itself. The details of the clinical requirements for a core Discharge Summary have been documented [DS- CIC2010] along with complete structured document template specifications [DS-SDT2009].

### 7.1.1 Message information requirements

| Number | Requirement |
|---|---|
| DSIR.5 | The message header must uniquely identify the particular instance of the Discharge Summary and be able to relate this to a particular episode of hospital care. |
| DSIR.6 | The message header must contain a distribution list having unambiguous identification details of all the recipient health provider organisations.<br>It may contain identification details of the individual health providers and/or their roles at the recipient organisations. |
| DSIR.7 | The distribution list must be capable of indicating a primary recipient. |
| DSIR.8 | The message header must show the release status of the Discharge Summary. (i.e. Interim, Final, Amended). |
| DSIR.9 | The message header must unambiguously identify the subject of care to the receiving system. |
| DSIR.10 | The message header must clearly show who authored the release of the Discharge Summary |
| DSIR.11 | The message header must clearly show who should be contacted for further information about the hospital episode. |
| DSIR.12 | The message (or associated style sheet) should contain information to enable the receiving system to enhance the presentation of the Discharge Summary (e.g. by highlighting amended information or requests for particular follow-up action by the GP). |

**Table 30 Information requirements - message**

### 7.1.2 Discharge Summary content

The Discharge Summary clinical content is defined in the Core Information Component document [DS-CIC2010].

# 8 Distribution service

## 8.1 Introduction

This chapter describes the business requirements for the distribution of discharge summaries. The Distribution Service referred to here is a conceptual rather than physical entity and components of the service may be provided by the Discharge Summary Service, by other hospital applications or by third party intermediaries. From the originating and receiving clinician's perspectives, it is a service that distributes the Discharge Summary securely, in a timely manner, from one participant to another.

### 8.1.1 Requirements overview

This section briefly describes each stakeholder's interest in the distribution of discharge summaries.

- Originating clinician interest:
  - Discharge Summary is delivered to the correct recipient
  - Discharge Summary is delivered in a timely manner
  - System is capable of receiving technical confirmation that discharge was successfully received
- Receiving clinician interest:
  - Assurance that the Discharge Summary is from the claimed organisation
  - Assurance that the Discharge Summary is unchanged from that released by the author
  - Assurance that the Discharge Summary is received in a timely manner (i.e. prior to the patient presenting)
- Patient interest
  - Assurance that the contents of the Discharge Summary were unchanged, secure and kept confidential during transmission from generator to recipient
  - Discharge Summary delivered in timely manner so as to be available when the patient next presents to the nominated primary healthcare provider
  - Patients would like to be able to find out when and to whom a Discharge Summary has been sent

### 8.1.2 Scope

This chapter covers the business requirements for the secure packaging and electronic distribution of discharge summaries by electronic means.

It is assumed that any manual distribution will be handled by manual processes associated with the finalisation of the Discharge Summary, including:

- Provision to the patient

- Filing a copy of the Discharge Summary in the hospital records (if required)
- Distribution to the nominated primary healthcare provider or other recipients by post

Later distribution requirements will include:

- Transmission of the Discharge Summary to one or more EHRs.

### 8.1.3 Handover assumptions

When 'handed over' to the Distribution Service, the Discharge Summary will:

- Include a distribution list which unambiguously identifies each recipient and the mode of communication. (The individual recipient clinician may or may not be identified).

## 8.2 Message flow

The following table details the various messages that must flow between the generator and the recipient during the electronic transmission of the Discharge Summary.

| Message | Direction | Means |
|---|---|---|
| Discharge Summary (Note: there may be multiple versions of a Discharge Summary for a single clinical episode.) | Hospital to GP | Electronic |
| Acknowledgment that the Discharge Summary has been received, decrypted, authenticated and is well formed. | GP to Hospital | Electronic |
| Error message stating that the Discharge Summary was received but failed decryption. | GP to Hospital | Electronic |
| Error message stating that the Discharge Summary was received but failed authentication. | GP to Hospital | Electronic |
| Error message stating that the Discharge Summary was received but failed processing (i.e. was not well formed). | GP to Hospital | Electronic |

**Table 31 Message flow detail**

The following message types are shown for completeness. They are, in fact, discussions held between the receiving GP practice and the originating hospitals.

| Message | Direction | Means |
|---|---|---|
| Warning that the patient referred to in the Discharge Summary is not a patient of the GP practice. | GP to Hospital | Electronic |

**Table 32 Message flow warnings**

Note that the above detail does not address:

- Cases where transmission of the Discharge Summary is by fax or post.
- Additional messages needed to support the internal operation of an intermediate store and notification pattern. The messages listed above are those needed from the business perspective of the originating and recipient organisations.

## 8.3 Business requirements

| Number | Requirement |
|---|---|
| DSBR.20 | Discharge summaries must be sent electronically only to health care providers who have provided details of a secure receipt method. |

**Table 33 Business requirements - transmission conditions**

## 8.4 Functional requirements

| Number | Use Case | Requirement |
|---|---|---|
| DSFR.13 | 8. | The distribution service must determine the best format and endpoint for distribution to each organisational recipient. |
| DSFR.14 | 8 | The Discharge Summary must be secured so that only the nominated recipient organisation can decrypt its contents (i.e. those individuals within the recipient organisation who will be able to read-access the Discharge Summary will be controlled by the access controls within the receiving software). |
| DSFR.15 | 8. | The recipient of the Discharge Summary must be able to authenticate the identity of the originating organisation. |
| DSFR.16 | 8. | The recipient of the Discharge Summary must be able to assure that its contents have not been changed following authorisation by the hospital clinician. |
| DSFR.17 | 8. | Each transmission of a Discharge Summary, and notifications about a Discharge Summary, must be identified so that they can be associated with the particular Discharge Summary instance. |

**Table 34 Functional requirements - message transmission**

## 8.5 Non-functional requirements

### 8.5.1 Security

| Number | Requirement |
|---|---|
| DSNR.9 | Although each transmission of a Discharge Summary, and notifications about a Discharge Summary, must be identified so that it can be associated with the particular Discharge Summary instance, this identifier must not be able to be associated with an individual patient without decryption of the message content. |

| | |
|---|---|
| DSNR.10 | The Discharge Summary must be secured so it cannot be viewed or modified by any intermediary agent involved in the distribution or temporary storage of the Discharge Summary between the generator and the recipient. |
| DSNR.11 | Any copy of a Discharge Summary stored by an intermediary must be permanently deleted once an intermediary-specific acknowledgement of successful receipt has been received. |

**Table 35 Non-functional requirements - security**

### 8.5.2 Performance and availability

Although the distribution of discharge summaries is a business-critical process, it is a requirement that the Discharge Summary administrator at any hospital affected by a sustained failure in the distribution service chain be notified of this failure. This is to allow alternative means of transmission to be arranged for any clinically urgent discharge summaries, if required.

| Number | Requirement |
|---|---|
| DSNR.12 | The distribution service must transfer acknowledgement of the successful receipt and decryption of the Discharge Summary by the receiving system to the Discharge Summary service, in a timely manner.<br>Transmission failure must be assumed if receipt is not received within a set time. This time will be configurable by the originating organisation, typically within one working day (i.e. a day when the recipient system would normally be expected to be operational). |
| DSNR.13 | The distribution service must transfer all notifications of failures and errors to the sending Discharge Summary service, in a timely manner. |

**Table 36 Non-functional requirements - performance and availability**

# 9 Receiving system

## 9.1 Introduction

This chapter lists the requirements (functional, non-functional and information) for the receiving system based on the use cases descriptions from chapter 5.

## 9.2 Functional requirements

| Number | Use Case | Requirement |
|---|---|---|
| DSFR.18 | 10. | The system must be able to list all unprocessed discharge summaries, sorted/grouped by (at least) recipient clinician, receipt date, patient name and sending organisation. |
| DSFR.19 | 12. | The system must be able to display a categorised exception list of discharge summaries including:<br>• Overdue for processing<br>• No nominated individual clinician<br>• Patient does not appear to be patient of the clinic. |
| DSFR.20 | 10. | The system must be able to associate a Discharge Summary with a patient record based on any of the following:<br>• IHI<br>• Locally shared auxiliary identifier<br>• Patient demographic details.<br>These associations are tested in descending order. Therefore, if an IHI match is made, the system will not attempt to match on demographic details but will validate the consistency of the IHI link against the matched demographic details.<br>(Note that the IHI will not initially be available, and local identifiers will not be in common use, so this requirement applies to the extent that these identifiers are available.) |
| DSFR.21 | 10. | The system must be able to incorporate the IHI included in the Discharge Summary into the practice clinical system. This is to accommodate the case where the Discharge Summary contains the patient's IHI, but the GP practice system does not. |
| DSFR.22 | 12. | The recipient must be able to choose which data elements of the Discharge Summary will be stored as atomic data within the local EMR system. It is the responsibility of the clinician to ensure that the data elements included have their context preserved. |
| DSFR.23 | 12. | The receiving application should promote safety and quality by highlighting where demographic data within the Discharge Summary is inconsistent with data held within the receiving application. |
| DSFR.24 | 10. | The system must be able to store and display the full Discharge Summary independent of which elements have been stored as atomic data within the receiving system. |

**Table 37 Functional Requirements - Receiving System**

## 9.3 Non-functional requirements

### 9.3.1 Authorisation and security

| Number | Requirement |
|---|---|
| DSNR.14 | The system must support role-based levels of access (i.e. the ability to view only the header information or the whole Discharge Summary based on the level of access provided to the role). |
| DSNR.15 | The system must support role-based access to individual Discharge Summary messages. |

**Table 38 Non-functional requirements - authorisation and security**

### 9.3.2 Usability

This section covers the usability of relevant desktop software, presentation aspects, and (by implication) performance aspects. From the business perspective there are two key considerations.

An average general practice consultation is approximately 15 minutes in duration, within which time the recipient clinician has limited opportunity to read and absorb a complex Discharge Summary [GPAA2008]. Consequently, the presentation of the Discharge Summary should promote quality and safety by allowing the reader to quickly determine the most significant components.

In the longer term, the data within the Discharge Summary must be system- interpretable atomic data so that decision support functionality can detect and alert the clinician to inconsistencies between the existing data, and the data within the Discharge Summary.

| Number | Requirement |
|---|---|
| DSNR.16 | The presentation of the discharge must be dynamically structured so as to promote safety and quality through highlighting/focusing on critical elements. |
| DSNR.17 | For a reissued Discharge Summary (e.g. Final following an Interim or Amended following Final), the presentation must allow the user to quickly determine the changed/appended components. |
| Note:<br>• DSNR.16 may be achieved through the use of included metadata flags (e.g. the CDA style sheet)<br>• DSNR.17 may be achieved through the use of included flags or through the desktop software comparing the new version and old versions of the Discharge Summary to determine differences. | |

**Table 39 Non-functional requirements - usability**

# 10 Directory service requirements

## 10.1 Introduction

The following chapter provides a business-focused description of the infrastructure services that will be required to support the successful delivery of a Discharge Summary. The services are listed as provider directory services and patient directory services. These are names of conceptual services and do not imply any particular architecture or organisation for the provision of the services.

In the long term, these services will be provided by the national infrastructure services, namely: the HI service, Endpoint Locator Service (ELS) and NASH services.

For the short to medium term implementations, these services will need to be provided locally.

### 10.1.1 Provider directory

The key business functions of a provider directory are as follows:

- Associate an unambiguous identifier for a provider organisation with a human-supplied description of that provider organisation.
  - From this identifier, locate/determine the following information for the health care provider organisation:
    - Preferred mode of communication;
    - Address for communication (i.e. fax number, postal address, web service address, email address);
    - Format(s) of communication (e.g. for each message type, the versions of CDA message supported); and
    - Provide ‘certificates’ to enable the secure transfer of information between the two parties.
- Associate an unambiguous identifier for an individual health care provider with a human-supplied description of that provider.

### 10.1.2 Patient directory

The patient directory service must be able to determine the appropriate identifier to unambiguously identify the Discharge Summary subject. In the long term, this information will be provided by the HI services but in the short to medium term there may various local/regional identifiers in use.

## 10.2 Business requirements

| Number | Requirement |
|---|---|
| DSBR.21 | The provider directory services must appear as a single coherent service to health care providers. (The intent of this requirement is that providers and provider organisations only need to supply details once to a single organisation, rather than be required to supply details to a national service and also provide details to other local and jurisdictional services.) |
| DSBR.22 | The originating organisation must be accurately registered with the directory service and credentialed to access it. |
| DSBR.23 | The receiving organisation must be registered with the directory service and credentialed to access it. |

**Table 40 Business requirements - directory service**

## 10.3 Functional requirements

| Number | Use Case | Requirement |
|---|---|---|
| DSFR.25 | 3. | The directory service must be searchable for an organisation, an individual provider or a combination of organisation/individual. |
| DSFR.26 | 3. | The directory service must be able to list all individual providers associated with a recipient organisation. |
| DSFR.27 | 3. | The directory service must be able to list all organisations associated with an individual provider. |
| DSFR.28 | 5. | The directory service must be able to provide the preferred mode of communication for a recipient organisation. |
| DSFR.29 | 8. | The directory service must be able to provide the address (electronic or otherwise) for the preferred mode of communication of the Discharge Summary for each organisation. This may include web service, fax number, physical postal address, etc. |
| DSFR.30 | 8. | Where there are multiple format possibilities, the directory service must be able to provide a list of all the formats that a recipient organisation can support. |

**Table 41 Functional requirements - directory service**

## 10.4 Non-functional requirements

| Number | Requirement |
|---|---|
| DSNR.18 | Access to the provider directory service must be controlled such that only approved organisations can access the service. |
| DSNR.19 | Searching for organisations and individual providers to determine their identification numbers must be performed in real time by clinicians; hence adequate response time is critical. |
| DSNR.20 | Searching for electronic address and mode of communication must be performed and hence response time is not critical. |

**Table 42 Non-functional requirements - access and search**

# Definitions

This section explains the specialised terminology used in this document.

## Shortened terms

This table lists abbreviations and acronyms in alphabetical order.

| Term | Description |
|---|---|
| ACHS | Australian Council on Healthcare Standards |
| CDA | Clinical Document Architecture |
| DOB | Date of Birth |
| DS | Discharge Summary |
| ED | Emergency Department |
| EHR | Electronic Health Record |
| ELS | Endpoint Locater Service |
| EMR | Electronic Medical Record |
| FTE | Full Time Equivalent |
| GDP | Gross Domestic Product |
| GP | General Practitioner |
| HI | Healthcare identifiers |
| HPI-I | Health Provider Identifier - Individual |
| HPI-O | Health Provider Identifier - Organisation |
| IHI | Individual Healthcare Identifier |
| IT | Information Technology |
| NASH | National Authentication Service for Health |
| NEHTA | National E-Health Transition Authority |
| NPP | National Privacy Principles |
| OP | Outpatient |
| PAS | Patient Administration System |
| PCEHR | Personally Controlled Electronic Health Record |
| RN | Registered Nurse |
| SNOMED-CT | Systemised Nomenclature of Medicine, Clinical Terminology |
| TMS | Theatre Management System |
| UC | Use Case |

# Glossary

This table lists specialised terminology in alphabetical order.

| Term | Description |
|---|---|
| Distribution list | List of all planned unambiguously identified recipients of a Discharge Summary instance. |
| Endpoint | Where a web service connects to the network.<br>Source: http://www.looselycoupled.com/glossary/endpoint |
| Exception list | List of discharge summaries received by a Practice that have anomalies that need to be resolved through human intervention. |
| Interim Discharge Summary | A Discharge Summary released to provide information to recipients with the understanding that the information contained may not be complete and is subject to change/amendment. |
| Interoperability | The ability of software and hardware on multiple machines from multiple vendors to communicate.<br>Source: http://foldoc.org/interoperability |
| Non-admitted Patient | Patients who are admitted for dialysis, same day radiotherapy and other procedures involving repetitive one day admissions would not normally require a Discharge Summary are referred to as non-admitted patients. |
| Referral | Referral is the communication, with the intention of initiating care transfer, from the provider making the referral to the receiver.<br>Source: Australian Standard [AS4700.6–2004] |
| Summary Health Profile | A standard specification of demographic and health/clinical data contents used to capture information about the health status of a patient at a specific point-in-time. It is intended to provide crucial health status information to facilitate the delivery of safe, quality care to the patient, especially in unplanned/emergency situations. |
| Treating doctor | The clinician responsible chiefly responsible for the care of the patient during an inpatient episode. |
| Worklist | List of discharge summaries currently assigned to a particular clinician. |

# References

At the time of publication, the document versions indicated are valid. However, as all documents listed below are subject to revision, readers are encouraged to also seek out the most recent versions of these documents.

## Package documents

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

| Discharge Summary Package Documents | | | |
|---|---|---|---|
| [REF] | Document Name | Publisher | Link |
| [DS-ES2010] | e-Discharge Summary Release 1.1 – Executive Summary v1.0 | NEHTA 2010 | http://www.nehta.gov.au/e-communications-in-practice/edischarge-summaries<br>Open menu: e-Discharge Summary Package 1.1 |
| [DS-RN2010] | e-Discharge Summary Release 1.1 – Release Notification v1.0 | | |
| [DS-BRS2010] | e-Discharge Summary Release 1.1 – Business Requirements Specification v1.0 | | |
| [DS-SD2010] | e-Discharge Summary Release 1.1 – Solution Design v1.0 | | |
| [DS-CIC2010] | e-Discharge Summary Release 1.1 – Core Information Components v1.0 | | |
| [DS-TSS2010] | e-Discharge Summary Release 1.1 - Technical Service Specification v1.0 | | |

## References

The documents listed below are non-package documents that have been cited in this document.

| Reference Documents | | | |
|---|---|---|---|
| [REF] | Document Name | Publisher | Link |
| [NHPAC-NCDS2006] | National Health Priority Action Council (NHPAC) (2006), National Chronic Disease Strategy, Australian Government Department of Health and Ageing, Canberra | National Health Priority Action Council | http://www.health.gov.au/internet/main/publishing.nsf/Content/7E7E9140A3D3A3BCCA257140007AB32B/$File/stratal3. pdf |
| [AIHW-AHS2009] | Australian Institute of Health and Welfare 2009. Health expenditure Australia 2007–08. Health and welfare expenditure series no. 37. Cat. no. HWE 46. Canberra: AIHW | Australian Institute of Health and Welfare | http://www.aihw.gov.au/publications/hwe/hwe-46-10954/hwe-46-10954.pdf |

| Reference Documents | | | |
|---|---|---|---|
| [REF] | Document Name | Publisher | Link |
| [ACHS-EG2006] | 'EQuIP Guide (Evaluation and Quality Improvement Program)', 2006, Sydney, Australia. | The Australian Council on Healthcare Standards | The Australian Council on Healthcare Standards |
| [AIHW-AHS2010] | Australian Institute of Health and Welfare 2010. Australian hospital statistics 2008–09. Health services series no. 17. Cat. no. HSE 84. Canberra: | Australian Institute of Health and Welfare | https://www.aihw.gov.au/reports/hospitals/ahs-2008-09 |
| [AS4700.6(Int)2007] | Interim Australian Standard, Implementation of Health Level Seven (HL7) Version 2.5, Part 6: Referral, discharge and health record messaging | Standards Australia 2007 | http://infostore.saiglobal.com/store/ Search "AS 4700.6(Int)- 2007". |
| [DS-SDT2009] | Discharge Summary - Core, Structured Document Template (20090826) (v2.1) | NEHTA 2009 | http://nehta.gov.au/connectin g-australia/terminology-and-information/clinical- information-mi Open menu: Clinical Information Structured Document Templates |
| [GPAA2008] | Britt H, Miller GC, Charles J, Henderson J, Bayram C, Harrison C, Valenti L, Fahridin S, Pan Y, O'Halloran J 2008. 'General practice activity in Australia 2007–08'. General practice series no. 22. Cat. no. GEP 22. Canberra: | Australian Institute of Health and Welfare (Aus GP Stats & Clasf'n Centre) | General practice activity in Australia 2007–08 (AIHW) |
| [PA1988] | 'Privacy Act 1988', Australian Government | Office of Legislative Drafting and Publishing, Attorney-General's Department, Canberra | Privacy Act 1988 - Federal Register of Legislation |
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# Related reading

The documents listed below may provide further information about the topics discussed in this document.

| Related Documents | | | |
|---|---|---|---|
| [REF] | Document Name | Publisher | Link |
| [IF2007] | Interoperability Framework v2.0 | NEHTA 2007 | Interoperability Framework v2.0 Search “interoperability 2.0”. |
| [ATS5820-2010] | Australian Technical Specification - E-Health Web Services Profiles | Standards Australia 2010 | ATS 5820-2010 E-health web services profiles |
| [ADHAWEB] | ADHA Web Site | ADHA | Digital Health Developer Portal |