



e-Referrals

Business Requirements Specification

Version 1.1 - 11 February 2011

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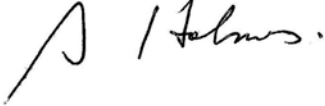
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Preface

Document Purpose

This Business Requirements Specification document provides the high-level requirements, business models and use case descriptions of the e-Referrals Release 1.1 package, relevant to the exchange of referral documents within Australia.

The package describes the specifications and guidelines to be adopted by implementers when developing nationally-interoperable referral solutions within the Australian healthcare community.

This requirements document serves as the basis for the technical discussion of the next document in the package, the Solution Design. As such, it is suggested that readers familiarise themselves with both of these documents before moving to the Core Information Components document.

This document embodies three major goals:

- Serving as an input for the solution design and architecture
- Rendering of business needs into component parts
- Establishing a feedback mechanism between NEHTA's e-Referrals project team and project stakeholders.

Updates to this document will be published based on external feedback. Additional package components will be developed based on industry requirements.

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 e-Referral systems
- Software vendors developing e-Referral system products
- Early adopter general practitioner and specialist desktop software vendors
- Senior managers and policy makers, clinical experts, Health Information Managers, IT operations and support teams, system integrators
- Stakeholders associated with the development and use of upcoming e-health initiatives relating to 'continuity of care'
- Both technical and non-technical readers.

Document Map

The following figure represents the relationship between this document and others within the e-Referrals package.

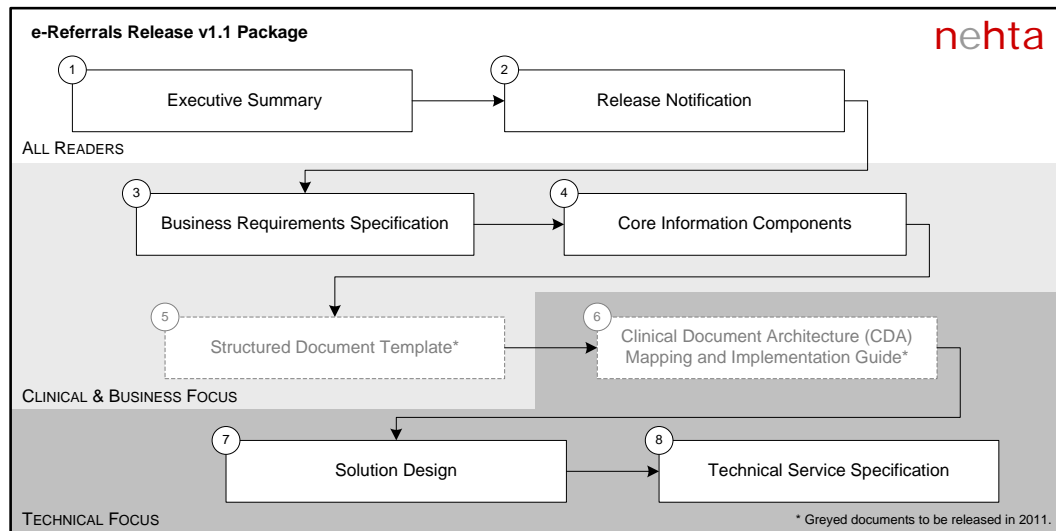


Figure 1 e-Referrals Package Document Map

The Solution Design defines Current, Interim 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 involved in the exchange of referral 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 a list of abbreviations, acronyms and abbreviations, see the [Definitions section](#) at the end of the document, on page 43.

References and Related Documents

For a list of referenced documents, see the [References section](#) at the end of the document, on page 46.

1 Introduction

1.1 Overview

This document describes the high-level requirements for the creation, delivery and receipt of electronic patient referrals, between general practitioners and specialists within Australia.

The foundational requirements documented here are intended to inform the design and implementation of future health-sector systems. Various components of the emerging national infrastructure service (e.g. unique identifiers) will be introduced, as will uptake of the terminology-related SNOMED CT and its Australian extensions such as the Australian Medicines Terminology. Each of these components will assist in electronic referral exchange by providing supporting ancillary services.

Consequently, 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.

NEHTA aims to facilitate a national approach to the implementation of an electronic clinical referral (i.e. 'e-referral') infrastructure to support private, National, State and Territory healthcare services reforms. These reforms are aimed at improving the safety, effectiveness, timeliness, efficiency and equity of consumer healthcare by facilitating the flow of health information in a secure and private manner between authorised healthcare providers and service providers.

1.2 Business Need

Currently, the transaction of referrals between healthcare professionals in Australia occurs within limitations which could - with appropriate consensus - be reduced or eliminated. These limitations relate to communications, data quality and timeliness, among others. The enhancement of referral practices with standardised, scalable e-health methodologies could also be introduced so as to deliver other benefits, such as ongoing opportunities to verify that patient information is accurate, complete and up-to-date, and the contribution of diagnostic tests to a patient's ongoing, cumulative health record.

Given that referral processes are a major factor in patient treatment, and constitute a business-critical function within the health sector, the need for consultation, requirement identification, and close delivery partnerships between stakeholders will be essential if any e-referral schema is to succeed.

To this end, the following critical components have been identified as requirements for an effective Australian e-referral system:

- Robust functional requirements
- Unique electronic identification of patients
- Secure, effective and efficient standardised messaging services
- Standardised clinical information and clinical terminology.

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. In this way, NEHTA highlights decision points for key stakeholders, and provides a basis for common expectations across the sector.

By providing a solution foundation for the e-health community, NEHTA aims to provide clear direction for stakeholders on the end-to-end interoperation of new specifications to support the flow of clinical information across the health sector. This is initiated 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 across Australia.

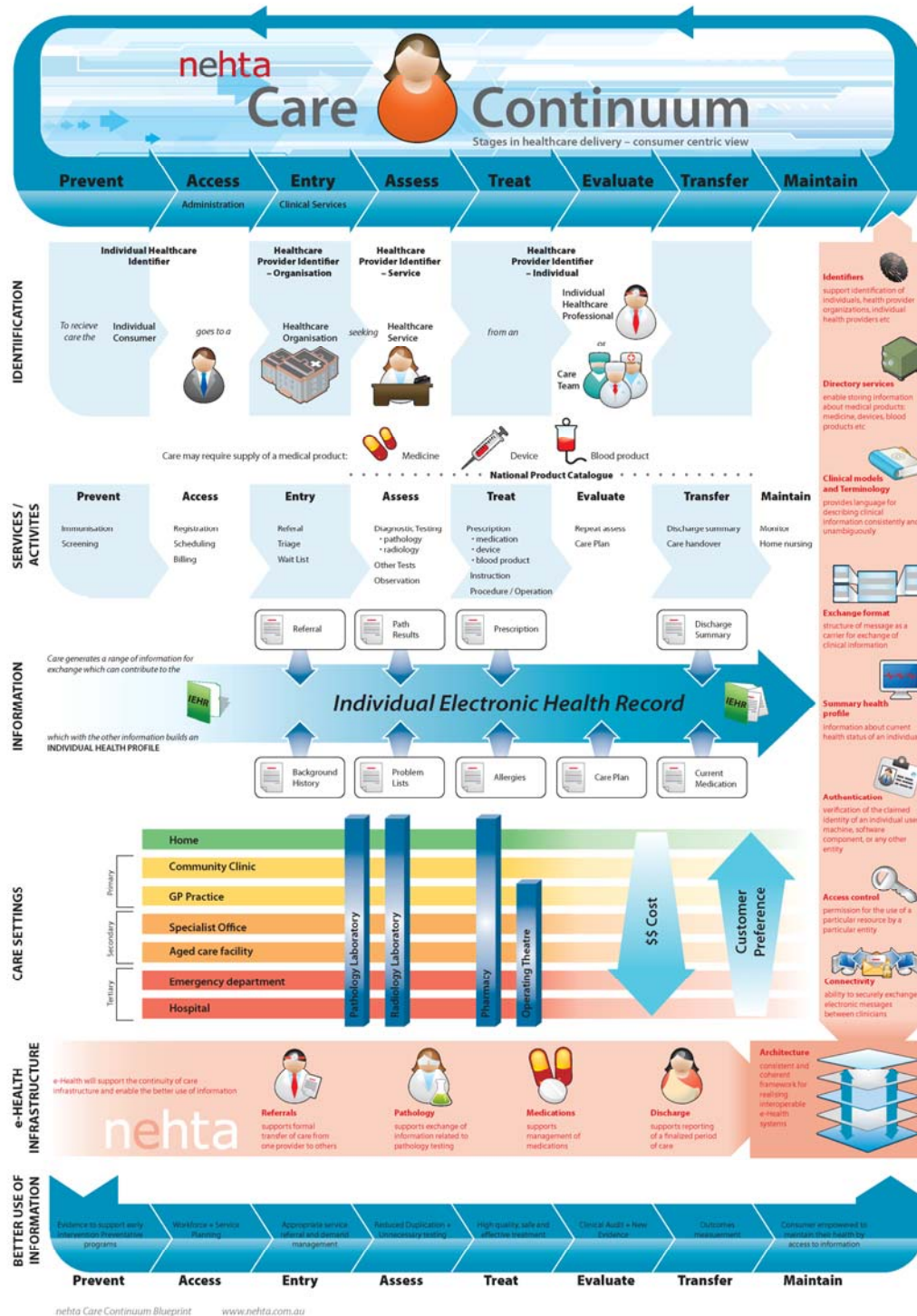


Figure 2 Care Continuum Blueprint

Each package is made up of documents describing NEHTA specifications with 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.

1.4 Referral Definition

Referrals are an essential part of clinical care in the Australian health system, as they allow the informed sharing of scarce resources, including clinical expertise, diagnostic testing, and technical/interpretive skills. Referrals are commonly issued by general practitioners to allow patients a period of specialist consultation, focussing upon a specific health problem.¹

Currently, there are varying definitions for 'a referral' within Australia, depending upon the organisation or authority sourced, and the specific perspective considered (e.g. administrative, clinical-responsibility, financial, regulatory).

Within the Australian health care environment, there are two commonly-cited definitions of a referral.

The Medicare Benefits Schedule Book (MBS) [MBSB2009] defines a referral as:

"...a request to a specialist or a consultant physician for investigation, opinion, treatment and/or management of a condition or problem of a patient or for the performance of a specific examination(s) or test(s)."

The Schedule also notes:

"The general practitioner is regarded as the primary source of referrals. Cross-referrals between physicians should usually occur in consultation with the patient's general practitioner."

The Australian Standard [AS4700.6–2006] uses the following definition:

"The communication, with the intention of initiating care transfer, from the provider making the referral to the receiver."²

NEHTA's specification development effort identifies that in the case of general practitioner-initiated referrals, the concept of a patient's usual general practitioner performing the central role of care coordinator is key. The majority of referrals relate only to an aspect of a patient's care, for a defined time, and for a particular purpose, typically beyond the area of the referrer's expertise.

1.5 General Assumptions

NEHTA's specification-development effort has been informed by the following general assumptions:

1. In the case of general practitioner-initiated referrals, the concept of a patient's usual general practitioner consistently performing the central role of care coordinator is key, given that the majority of referrals:
 - a) relate to an aspect of the patient's care
 - b) are for a defined time and purpose

¹ NEHTA's work on referrals is based upon this pattern, but will develop with the term in future releases as types of referrals, referrers and referees change.

² "Implementation of Health Level Seven (HL7) Version 2.4, Part 6: Referral, Discharge and health record messaging" 2006, p9

- c) are typically beyond the area of the referrer's expertise
- 2. The exchange of clinically relevant information between health care professionals allows optimal patient care to occur
- 3. Valid referrals need to comply with relevant legal, financial, managerial, and administrative requirements (e.g. Medicare Australia, Department of Veterans' Affairs, Workers Compensation)
 - a) Consistent with Medicare Australia criteria, general practitioners (referrers) have the authority to send referrals, and specialists (referees) have the authority to receive them.
- 4. All referrers have access to the following general practitioner systems:
 - a) electronic patient record-keeping
 - b) billing
 - c) appointment-booking
- 5. Electronic referral systems will make use of multiple identifiers and allow automated matching of a patient's Individual Health Identifier (IHI) and manual validation of the patient's name, date of birth, address, and other demographic details
- 6. All referees have access to the following specialist systems:
 - a) referrals
 - b) appointments
 - c) electronic patient record-keeping
- 7. Local and national provider services directories exist and are available to general practitioners for use when selecting a specialist provider.

1.6 Assumptions relating to the Healthcare Identifiers Service

The following assumptions relate to the Healthcare Identifiers Service [COO2010]:

- 1. The provision of national healthcare identifiers will be managed and operated through a national Healthcare Identifiers Service (HI Service)
- 2. It is anticipated that the HI Service will be used for a range of purposes within a clinical setting, including that of a unique patient identifier within:
 - a) Systems such as; patient administration systems, master patient indexes, electronic health records, radiology systems, pathology systems, pharmacy systems, and general practitioner systems
 - b) Electronic forms of communication, such as; pathology requests, pathology reports, imaging requests, imaging reports, discharge summaries, prescriptions, repeat authorisations, referrals, and notifications to registries
- 3. The HI Service will leverage Medicare Australia's Consumer Directory Maintenance System (CDMS) and database for patients enrolled with either Medicare Australia or the Department of Veterans' Affairs.

4. If a presenting individual is new to a provider organisation, or the healthcare organisation has opted not to use a batch retrieval process (i.e. automate background matching of Medicare Australia numbers, name, date of birth and sex to the appropriate identifier), the HI Service will provide the ability to manually search for and obtain the appropriate HI Service identifier for a single individual.
5. The HI Service will allow for the creation of a provisional identifier, specifically for use in emergency situations where the identity of an individual cannot be obtained due to medical reasons.

1.7 Assumptions relating to the Healthcare Provider Identifier Service

The following assumptions relate to the Healthcare Provider Identifier (HPI) service [COO2010]:

1. The provision and allocation of Healthcare Provider Identifier - Individual (HPI-I) and Healthcare Provider Identifier - Organisation (HPI-O) numbers and records will be managed and operated through a national HI Service
2. This process of associating an HPI-I and HPI-O will ordinarily be triggered at the commencement of an individual's employment with a registered HPI-O, and it is the responsibility of the organisation in question to create and maintain these associations.

1.8 Scope

1.8.1 Scope Inclusions

The scope of the e-Referrals Release 1.1 package includes electronic referral processes, between general practitioners and specialists. That is, the creation, delivery, receipt, assimilation and confirmation of patient referral documents in electronic form.

1.8.2 Scope Exclusions

The scope of this package excludes the following:

- The 'decision to refer' process
- The 'booking/scheduling' process at either the general practice or the specialist clinic.

1.9 Referral process

The following figure shows a high-level view of the steps involved in a patient referral.

The shaded area indicates the scope of the e-Referrals Release 1.1 package, namely the processes and message instances occurring from the decision to refer the patient to the notification that the referral has arrived at the specialist system. This is the foundation of e-Referrals, which will be extended in future package releases.

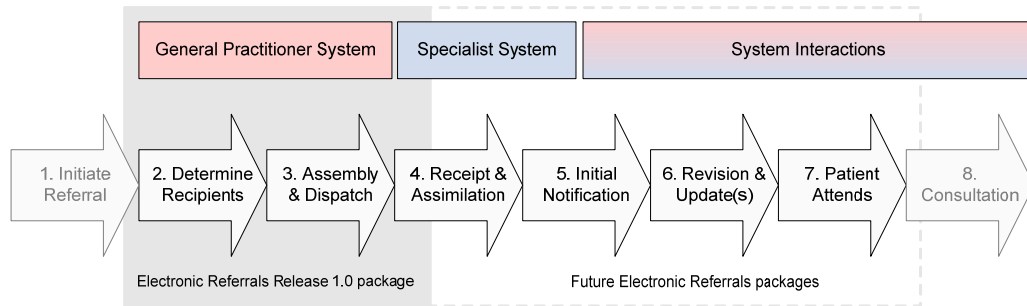


Figure 3 High-level electronic referral process

1.9.1 Steps

The end-to-end electronic referral process is made up of the following steps:

1. Initiate Referral
 - a) General practitioner undertakes professional attendance with patient and determines the need for a referral
2. Determine Recipients
 - a) Locate the specialist offering the required service (with suitable availability)
 - b) Determine the preferred means of communication
 - c) Determine the address of the intended recipient
3. Assembly & Dispatch
 - a) Determine if the recipient requires a special referral template
 - b) Auto-populate the referral with information from the general practitioner system
 - c) Manually add clinical details and review any system-provided information
 - d) Construct the referral in the correct format
 - e) Sign and encrypt the referral for secure messaging purposes
 - f) Send the referral
4. Receipt & Assimilation
 - a) Confirm the receipt of referral
 - b) Determine if the subject of care is a new or existing patient (i.e. create electronic record)
 - c) Incorporate data from the referral into the clinical information system
 - d) Assign a priority
5. Initial Notification
 - a) Specialist system may notify the general practitioner of assigned priority and/or appointment/waiting list status
 - b) Specialist or nominee notifies the patient of appointment/waiting list status
6. Revision & Update(s)

- a) The general practitioner may send referral updates
 - b) The specialist may notify the general practitioner of assigned priority and/or appointment/waiting list updates
7. Patient Attends
- a) The patient attends their initial appointment with the specialist
8. Consultation
- a) The specialist commences to treat the referred patient.

As indicated in Figure 3 High-level electronic referral process the scope of this package includes steps 2, 3 and 4a of this end-to-end process.

1.9.2 Future developments

In time, the referral model is likely to involve more than a single, one-way communication transaction between the referrer and referee.

Currently, the business process overview in section 3.1 depicts the processes and message interactions considered in-scope for this package release.

1.9.3 Transition states

This package makes use of the following terms to indicate the temporal context of specific descriptions or discussions.



Figure 4 Current, Interim and Future states

'Current' refers to the health sector setting at the time of publication, and indicates the implementation measures that can begin immediately, typically related to infrastructure specifications.

'Interim' refers to upcoming specifications and implementation measures which will be available in the near-future, via the release of subsequent package documents or components.

'Future' refers to the goal state, based upon implementations of e-health specifications and standards.

Opportunity for synergies between e-health solutions, and added value, increases with later states.

1.10 Business process modelling approach

1.10.1 Philosophy

The healthcare sector is complex and diverse, and its business processes may occur in parallel or 'out of order', generally as a response to the clinical needs of patients. Furthermore, healthcare processes are frequently emergent in nature and can change in response to contextual conditions.

In spite of this inherent complexity, there is value in capturing business processes to reflect key practices that have been established over time, and communicating this to stakeholders for the purposes of consensus-building. Process standardisations can potentially yield significant economic and social

benefits, including consistent quality potentials, improved interoperability, and the extension of investment value over time, among others.

1.10.2 Principles

Business processes contained in this document are based on the following principles:

- They are intended to highlight common events and describe associated business requirements, and are not intended to be read as prescriptive demands
- The complexity and diversity of healthcare represents a major opportunity for interoperable solutions which can translate local work practices into standardised business processes.

1.10.3 Notation

The notation used in this document follows the Business Process Modelling Notation (BPMN) standard.

1.11 Business requirements

1.11.1 Source of Requirements

Following analysis of the referral process by NEHTA, findings were documented and reviewed by a group of clinical leads, producing feedback which was incorporated into the current package.

Similarly, initial 'To-Be' business process models and requirements were drafted, based on the 'As-Is' business process analysis, and were presented to clinical leads for review and comment. These comments were then documented and incorporated, producing the 'To-Be' business requirements and processes presented in this document.

1.11.2 Identification

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

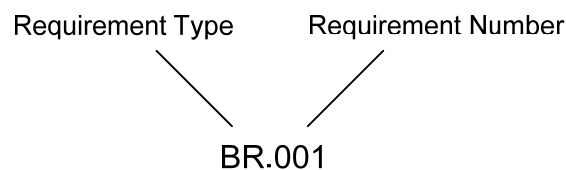


Figure 5 Identification Requirement Format

The Business Requirement (BR) is followed by a sequential identifier number.

1.11.3 Priority

Each requirement is prioritised according to its contribution to the project. A requirement is ranked using one of the following categories, based upon its importance and effectiveness to the project.

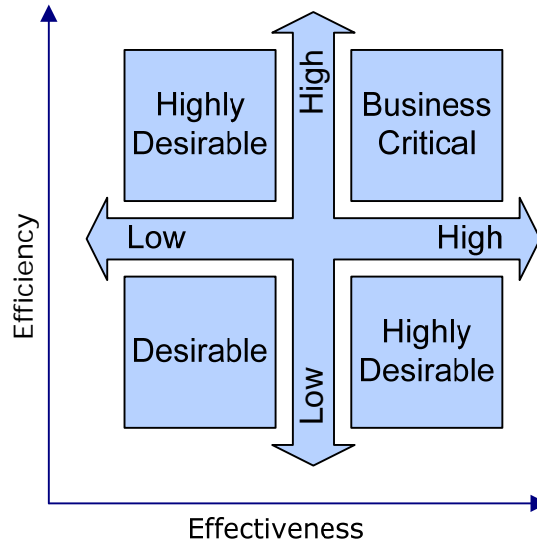


Figure 6 Desirability, Effectiveness & Efficiency

Requirement Priority	Requirement Priority Definition
Business Critical	Requirements in this category are considered mandatory and are necessary for the effective and efficient operation of the project.
Highly Desirable	Requirements in this category are considered optional but would provide considerable efficiency or effectiveness benefit to users of the project.
Desirable	Requirements in this category are considered optional and non essential but would improve the effectiveness of the project.

Table 1 Requirement Priorities

2 Context

2.1 Introduction

To make an accurate rendering of the business practices of any subsector of the Australian healthcare community, it is necessary to review its dimensions; conventions and structures which form the foundation of that subsector.

In the case of referrals, this includes established document transactions, participant roles and services, and overarching privacy requirements.

Consequently, this chapter provides the following contextual information:

- Business context
- Medicare-related parameters
- Referral-related roles and services
- Privacy principles
- Process descriptions

2.2 Business Context

2.2.1 Introduction

The following business rules provide the foundation for all requirements described in this document.

Within this document, the 'referrer' indicates the general practitioner and the 'referee' indicates the specialist.

2.2.2 Health Insurance Act 1973

The Health Insurance Act 1973 [HIA1973] sets out the laws related to clinical referrals as these apply to those services that are financially subsidised by the Medical Benefits Schedule (MBS).

The following subsections are an analysis of various components of referrals covered by the MBS. That is, referrals issued by general practitioners to patients for the purposes of accessing specialist care, the cost of which is to be reimbursed by Medicare Australia.

Therefore, this discussion does not pertain to patients seeking direct access to specialists who are willing to pay all 'out of pocket' expenses (i.e. without Medicare subsidy). Such patients may do so at any time, without being referred by a general practitioner.

Subsequent e-Referrals package releases will address the broader referral community model, and also consider and respond to any changes to Medicare requirements.

Content in this section is derived in part from the regularly-updated Medicare Benefits Schedule Book [MBSB2009]

2.2.2.1 Referrals and Reimbursements

Patients may present to specialists directly if they are willing to pay all consultation fees, without Medicare subsidy.

However, if seeking Medicare-subsidised specialist care (as detailed in the Medicare Benefits Schedule Book [MBSB2010]), patients with access to Medicare (i.e. typically Australian citizens and permanent residents) are required to initially present to a general practitioner, who may refer the patient to a specialist based upon their professional judgement of the health

problem. Such a referral relates to a single course of treatment, and needs to occur before the patient's initial consultation with the specialist. Exceptions include emergency referral requests (although ongoing treatment will still require a referral for benefits to continue).

Referrals are based upon the concept of a 'single course of treatment', relating to the medical condition which was originally identified by the general practitioner.

"A single course of treatment involves an initial attendance by a specialist or consultant physician and the continuing management/treatment up to the stage where the patient is referred back to the care of the referring practitioner. It also includes any subsequent review of the patient's condition by the specialist or the consultant physician that may be necessary. Such a review may be initiated by either the referring practitioner or the specialist/consultant physician."³

If an unrelated condition appears during the period of specialist treatment, another referral is needed.

"The presentation of an unrelated illness, requiring the referral of the patient to the specialist's care would initiate a new course of treatment in which case a new referral would be required."⁴

Consequently, if a patient consults the same specialist for more than one condition, the specialist may charge for more than one consultation if multiple referrals have been issued, and each of these would be reimbursed by Medicare.

A referral is embodied as a referral letter for an initial consultation, allowing a patient to be reimbursed by Medicare for their specialist attendance for a specified time. In the case of referrals issued by general practitioners, the default period for attendance following the first specialist visit is twelve months, but may vary depending upon the judgement of the referrer. Referrals for an indefinite period are also possible.

Referral letters must be retained for eighteen months after the date of service by the referred specialist, and are prima facie evidence of a valid referral instance.

Medicare reimbursements are maintained by an accounting process which identifies practitioners and specialists, location information, services provided, and period of referral.

Lost, stolen or destroyed referrals for an initial visit to a specialist are still reimbursed by Medicare if accounting records note this fact, but a replacement referral will need to be obtained by the specialist for benefits to continue.

2.2.2.2 Referral Template

A referral template must contain specific information (resulting from the following actions) to be considered valid for Medicare reimbursements:

- The referring general practitioner has attended to the patient and considered a referral to be appropriate
- Patient information has been gathered by the general practitioner for the specialist
- The 'instrument' of referral, a letter or note for the specialist (i.e. replicated/paralleled in electronic form) has been drafted by the general practitioner, including:

³ Medicare Benefits Schedule Book, November 2009, p27

⁴ ibid

- The referring practitioner's name
- The referrer's practice address and/or Medicare provider number
- Period of referral
- Date of writing.

2.2.2.3 Referral validity

Referral validity is a template data item associated with the 'period of referral', or the time within which a patient may consult with a specialist via a single referral. Typically valid for 12 months, a general practitioner may nominate a shorter period, or an 'indefinite' referral, to accommodate special conditions. Patients may choose the date of their first consultation with a specialist after the referral is issued, and the referral validity period commences from that date. Patients should inform their specialist if they are changing general practitioner, to allow reports to be sent to the correct address.

2.2.2.4 Provider eligibility

Referrals that are eligible for Medicare benefits can only be issued by healthcare providers who meet one of the following criteria:⁵

- Are a recognised specialist, consultant physician or general practitioner
 - Are in an approved placement under section 3GA of the Health Insurance Act 1973
- or
- Are a temporary resident doctor holding and operating with an exemption under section 19AB of the Health Insurance Act 1973 [HIA1973].

2.3 Electronic Transactions Act 1999

The Electronic Transactions Act 1999 (ETA) provides a regulatory framework designed to support the validity of electronic communications for transactions of different kinds; information provided in writing, signatures for identification and authorisation, document production requirements, document retention requirements, designation of the time and place of dispatch, and originator attribution [ETA1999].

Therefore, the ETA has implications for all electronic referral implementations (among other e-health developments), whether or not they are Medicare-related (as is the case for referrals).

Established Medicare-related electronic transactions occur within parameters defined by its policies and practices. Furthermore, Medicare Australia has published its requirements for non-Medicare e-health transactions, which also have implications for electronic referral implementations.

2.4 Medicare Australia and Department of Veterans' Affairs

Some restrictions apply to the Medicare eligibility of patients who are veterans, as provided in Section 8 of Mediguide. Depending upon the veteran's status, a variety of special arrangements apply, ranging from transport requirements to specialist reimbursement agreements. [MG2007]

⁵ Op cit p20

2.5 Roles and Services

2.5.1 Roles

This section lists the logical roles and services involved in the generation, distribution and receipt of electronic referrals. This section uses the terms 'roles' to refer to human roles, and 'services' to refer to system services.

2.5.1.1 Patient

An individual who is the subject of care. The terms 'patient', 'client', 'consumer', 'individual', 'individual consumer', and 'subject of the referral' are synonymous but the usage of one or other of these terms tends to differ between different groups of health professionals. (Terms such as 'healthcare consumer' or 'healthcare individual' are analogous terms, used by the HI Service.) Clinicians working in a hospital setting and medical practitioners in most settings often use the term 'patient', while allied health professionals may use the term 'client' or 'veteran' as appropriate. Within future e-health frameworks, a subject of care will increasingly become a system 'user'.

2.5.1.2 Referrer

The individual healthcare provider, specifically the general practitioner within the scope of this package. The terms 'healthcare provider individual', 'healthcare professional', 'referring practitioner', and 'referral author' are synonymous. The general practitioner authorises a referral communication to another healthcare provider (and may themselves also be referred to as a 'medical practitioner' or 'healthcare provider'). The referrer is also the 'user' of the general practitioner system, among other clinicians in the practice who are authorised by the general practitioner or the practice manager to view referrals. The referrer is the 'sender' of the referral.

2.5.1.3 Referee

The specialist healthcare service provider, within the scope of this package. The referee is an individual or organisational healthcare provider who is the intended recipient of a referral communication. The referee may also be referred to as a 'healthcare provider', 'medical practitioner' or 'care provider'. This role extends to a 'gatekeeper'; a person nominated by the specialist to read and organise the referrals before the specialist sees them. The gatekeeper may be given the authority to decide if the referral is appropriate, valid, complete and/or request further tests and/or investigations on behalf of the specialist. A referee is an 'authorised user' of the specialist system.

2.5.2 Services

2.5.2.1 Clinical Information Systems

The general practice clinical information system allows the general practitioner to store the patient's clinical information. It is expected to interface with the referral application.

2.5.2.2 (Electronic) Distribution Services

A conceptual rather than physical entity and components of the service may be provided by the referral generation system, other local applications and/or by third party intermediaries. From perspective of the referrer and referee, it is a service that distributes the referral securely, in a timely manner, from one healthcare provider to another.

2.5.2.3 Authentication Service

This service authenticates authorised users via the provision of digital certificates that will allow the encryption of messages. This is done to ensure the recipient can have confidence in the identity of the originator and that the referral has been transmitted unchanged.

As per MBS online 2010⁶, for a valid referral to take place:

1. The referring practitioner must have undertaken a professional attendance with the patient
2. The instrument of referral must be in writing as a letter or note to a specialist or to a consultant physician and must be signed and dated by the referring practitioner.
3. The specialist or consultant physician to whom the patient is referred must have received the instrument of referral on or prior to the occasion of the professional service to which the referral relates.

Whist condition 2 above is a future state, after discussion with DoHA and Medicare Australia, it is accepted that the referrer can sign the referral with an organisational certificate with the ability to identify the individual through local audit logs for the purposes of auditing, and this was supported for the current and interim state.

2.5.2.4 Provider Directory Services

The key business functions of a provider directory service are:

- The association of an unambiguous identifier for a 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 means of communication
 - Address for communication (i.e. fax number, postal address, web service address, email address)
 - Format(s) of communication
- The provision of digital certificates to enable/assure the secure transfer of electronic information between the two parties
- To determine the appropriate identifier to unambiguously identify the subject of the referral to the recipient system. In the long term this will be the HPI-O and the HPI-I; but in the short to medium term there may various local/regional identifiers in use.

2.6 Privacy

Australia's information privacy legislation gives individuals some control over the collection and handling of their personal information. It attempts to strike a balance between competing interests; that is, between the individual's right to privacy and the benefits of the free flow of information. Finding an appropriate balance between these interests is fundamental to the development of e-health in Australia.

NEHTA has developed an overarching privacy management framework which ensures that NEHTA initiatives comply with information privacy protection laws while enabling appropriate clinical safety and convenience outcomes.

⁶

[http://www.health.gov.au/internet/mbsonline/publishing.nsf/Content/FD65645DA9682F63CA2576F60002194F/\\$File/201005-MBS.pdf](http://www.health.gov.au/internet/mbsonline/publishing.nsf/Content/FD65645DA9682F63CA2576F60002194F/$File/201005-MBS.pdf) page 25

NEHTA packages are built for use across Australia. However, information privacy protection in Australia is legislated under various Commonwealth and State/Territory statutes which overlap but are not identical. As a result, NEHTA's approach with regard to this Referrals package has been by reference to principles that commonly apply under Commonwealth and State/Territory statutes. In order to do this, NEHTA has identified a set of principles that are common to the Commonwealth and State/Territory statutes. These common principles are based on the National Privacy Principles (NPPs) set out under the Privacy Act 1988 (Cth) and incorporate requirements derived from the laws and administrative instructions of other jurisdictions. These common principles are set out in the Appendix.

While NEHTA specifications have been developed with regard to these common privacy principles, organisations that adopt the Referrals package will need to implement it with regard to laws and other obligations that are in place in their jurisdiction, industry or profession. NEHTA recommends that healthcare providers (and other users of the Referrals package) continue to exercise diligence and obtain independent legal advice to ensure that their operations meet the requirements specific to their jurisdiction.

2.7 Process Descriptions

After consultation with the clinical leads, it was decided that the business processes should be discussed as they would appear, in the Interim and the Future state.

- Assembly and dispatch
 - The process of sending a referral in the Interim state and Future state would be the same (Section 3.2).
- Receipt and assimilation
 - The process of receiving a referral is discussed separately for the Interim (Section 3.5) and the Future state (Section 3.6)
 - The referee will have policies and procedures in place to deal with a received referral, given that a patient's duty of care is transferred to the referee upon receipt. The referee may either accept or reject the referral, or request additional information.
- The Future state of the receipt and assimilation business process would cater for the following business processes and messages:
 - Decline referral
 - Request for more information
 - Cancel referral
 - Appointment details
 - Did not attend alert/notification
 - Final report.

3 Business Process and Requirements

This section describes a high-level business process and is not intended to be detailed or prescriptive.

3.1 e-Referrals High-Level Overview

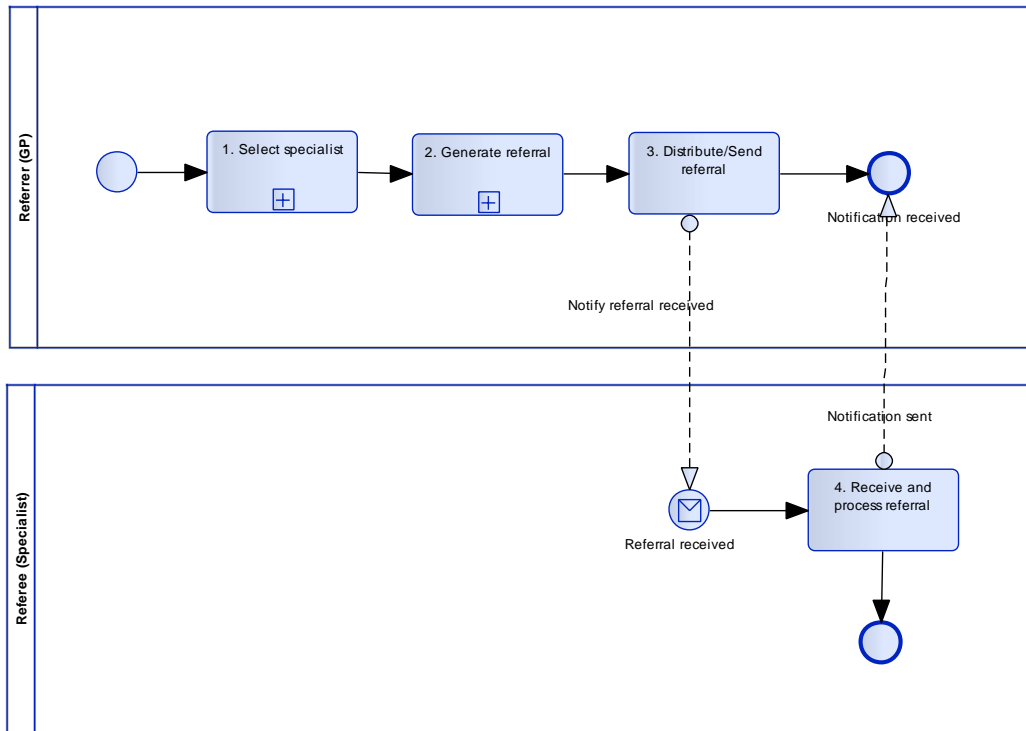


Figure 7 e-Referrals High-Level Overview

Business Process	e-Referrals High-Level Overview
Description	This process diagram outlines the sequence of activities that occur in a referral process from the time the patient goes to the general practitioner to the time they are seen by the specialist.
Process Description	<ol style="list-style-type: none"> 1. Select Specialist (Referrer) <ol style="list-style-type: none"> a) Determine if the patient requires a referral. b) Locate specialist that offers service. c) Determine preferred means of communication. d) Check and add any additional information/template is required by the referred specialist. e) Check that all specialist's details are included- name, address/provider number/HPI-I, HPI-O). 2. Generate Referral (Referrer)

Business Process	e-Referrals High-Level Overview
	<ul style="list-style-type: none"> a) Auto-populate referral with information from the general practitioner system. b) Add information not already auto-populated in the referral. c) Checks that all identifiers required for validation by receiver (name, address/HPI-I, HPI-O/ provider number, signature) are included. <p>3. Distribute/Send Referral (Referrer)</p> <ul style="list-style-type: none"> a) Determine sending address based on means of communication preferred. b) Send referral and save a copy in patient's records. c) Provide patient a copy of the referral if requested. <p>4. Receive and Process referral (Referred)</p> <ul style="list-style-type: none"> a) Confirm receipt of referral on specialist's records. b) Send acknowledgement to the general practitioner that the referral was received. c) Determine if the patient is new or known. d) If new, create new electronic record and populate with information from referral. e) Assign priority. <p>5. Notification (Referrer)</p> <ul style="list-style-type: none"> a) The general practitioner receives acknowledgement of the referral. b)

Table 2 e-Referrals High Level Overview

3.2 Assembly and Dispatch (Interim and Future)

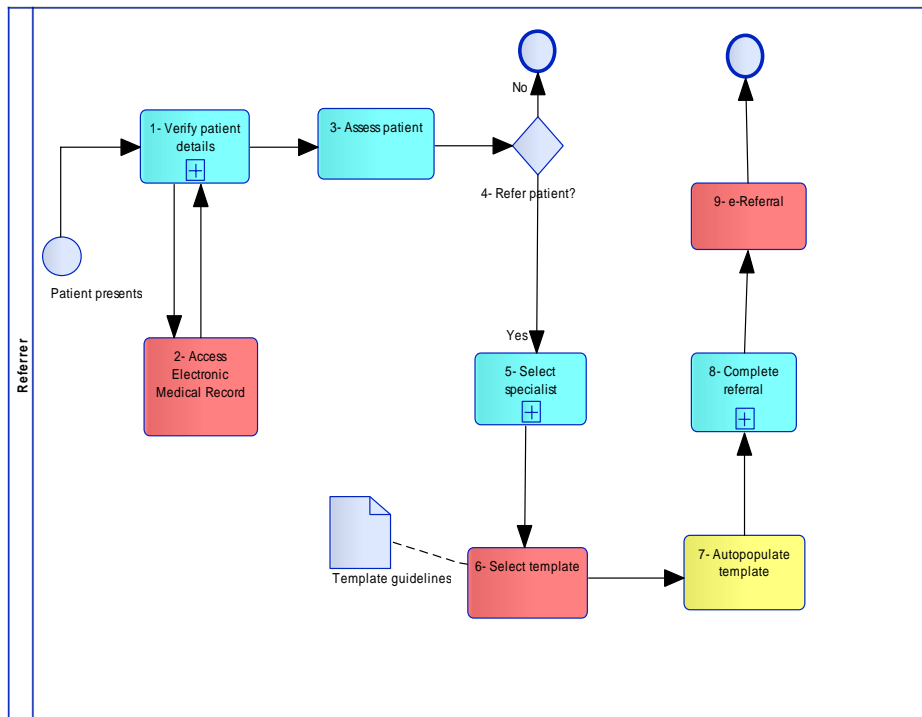


Figure 8 Assembly and Dispatch (Interim and Future)

- Legend:
 - Light Blue = Manual tasks
 - Brick = System + Manual tasks
 - Yellow = System tasks

Business Process	Assembly and Dispatch
Description	This process diagram describes the sequence of activities that occurs from a patient's first presentation to the general practitioner clinic, to the sending of a referral to a specialist.
Process Description	<ol style="list-style-type: none"> 1. Verify patient details <ol style="list-style-type: none"> a) The general practitioner administration team enters the patient's name or unique identifier (Individual Health Identifier(IHI), Date of Birth, name etc) into the general practitioner application/system b) The general practitioner's practice confirms the patient's identity and verifies the patient's details- IHI, Medicare number, name, address, Date of Birth. 2. Access Electronic Medical Record <ol style="list-style-type: none"> a) The application matches the patient's details (using IHI, name, Date of Birth) to the patient's Electronic Medical Record (EMR) stored in the general practitioner system. The general practitioner

Business Process	Assembly and Dispatch
	<p>brings up the patient's records.</p> <p>3. Assess patient</p> <p>a) The general practitioner assesses patient and their EMR is updated appropriately.</p> <p>4. Refer patient</p> <p>a) The general practitioner confirms that a referral will need to take place.</p> <p>5. Select specialist</p> <p>a) The general practitioner and patient together choose an appropriate specialist.</p> <p>b) The general practitioner accesses the provider directory to select the specialist.</p> <p>6. Select template</p> <p>a) The general practitioner brings up the referral template for the service selected. The general practitioner verifies that it is correct and selects it.</p> <p>7. Auto-populate template</p> <p>a) The general practitioner system auto-populates the sections of the referral template which already exist in the general practitioner system (EMR).</p> <p>8. Complete referral</p> <p>a) The general practitioner completes the referral and makes sure</p> <p>i) all the auto-populated information is correct and current</p> <p>ii) the specialist's details (HPI-I, HPI-O, name) are correct and the 'reason for referral' is made clear</p> <p>iii) .The general practitioner considers whether any additional information might be beneficial if added to the referral</p> <p>b) The general practitioner gives the patient a copy of the referral if requested.</p> <p>9. e-Referral</p> <p>a) The general practitioner sends the e-referral to the specialist.</p>

Table 3 Assembly and Dispatch (Interim and Future)

3.2.1 Complete Referral

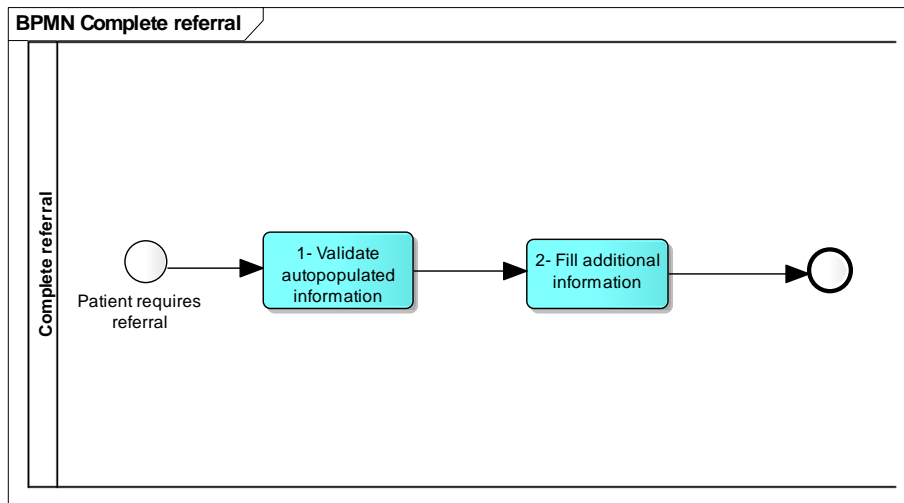


Figure 9 Complete Referral

- Legend
 - Light Blue = Manual tasks
 - Brick = System + Manual tasks
 - Yellow = Automatic tasks

Business Process	Complete Referral
Description	This process diagram describes the steps involved in completing an electronic referral before it is sent to the specialist.
Process Description	<ol style="list-style-type: none"> 1. Validate auto-populated information <ol style="list-style-type: none"> a) The referral template, by this point, has been auto-populated with required information from the Electronic Medical Record in the general practitioner system. The general practitioner reads through all this information to check that it is correct and current. The general practitioner can also edit the auto populated information if required. 2. Complete additional information <ol style="list-style-type: none"> a) The general practitioner then fills in additional information not previously auto populated: <ol style="list-style-type: none"> i) Reason for referral ii) Service requested.

Table 4 Complete Referral

3.3 Use Cases

The use cases tables below make use of a 'basic' and 'alternative' flow logic to define the normal progress through the steps of each use case (i.e. assuming no exceptions occur), and the variations which can be accommodated (i.e. in the event of problems or exceptions). This logic produces alternative flows (AF's), which are followed before returning to the next consecutive step in the basic flow of events.

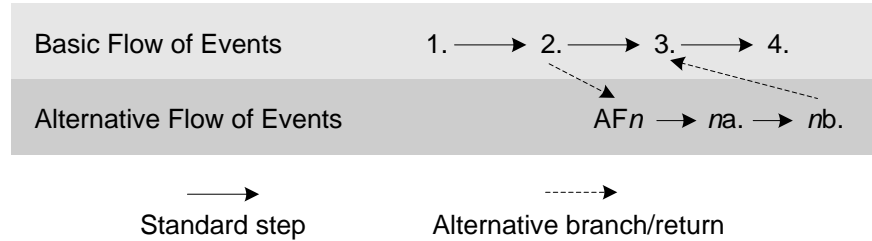


Figure 10 Use case flow branching and return

3.3.1 General Practitioner to Specialist

3.3.1.1 Verify Patient Details

Use Case #	UC-001
Use Case Name	Verify Patient Details
Goal	To ensure that the patient's details are current.
Primary Actor Stakeholders	<ul style="list-style-type: none"> • Referrer (general practitioner). • General practice administration team. • Patient. • Local general practice Electronic Medical Record system (EMR). • General practice billing system. • General practice appointment system.
Assumptions	<ul style="list-style-type: none"> • The referral system is interfaced with the general practice EMR system, the billing system and the appointment system. • The referrer's business practice mandates that the patient's details are validated upon arrival. • The general practice EMR system is the source of the patient's medical information. • The patient has been assigned an Individual Health Identifier (IHI).
Pre-conditions	The general practitioner is logged-on to the general practice EMR system.
Triggers	The patient visits the general practice for consultation.
Basic Flow of Events	<ol style="list-style-type: none"> 1. The general practice administration team retrieves the patient's record on the general practice appointment system and notes that he/she has arrived. 2. The general practice administration team verifies the patient's details such as name, address, and IHI on the general practice billing system. 3. The changes in the General practice billing system

Use Case #	UC-001
	<p>are reflected on to the General practice medical record system</p> <p>4. The use case ends.</p>
Alternative Flow of Events	<p>AF 1 The patient's details have changed.</p> <p>2a The administration team determines that the patient's details have changed.</p> <p>2b The administration team enters and validates the new patient details.</p> <p>2c The general practice billing system updates the demographic information in the general practice medical record system of this patient by matching the IHI.</p> <p>AF 2 The patient is not known to the general practice and does not have a medical record.</p> <p>1 a. The general practice administration team registers the new patient.</p>
Post-conditions	The patient's details are verified on the local general practice EMR system.
Notes	None.

Table 5 Verify Patient Details

3.3.1.2 Access Electronic Medical Record

Use Case #	UC-002
Use Case Name	Access Electronic Medical Record.
Goal	To access the patient's EMR to obtain and/or update clinical information.
Primary Actor Stakeholders	<ul style="list-style-type: none"> • Referrer (general practitioner). • Patient. • Local general practice Electronic Medical Record system (EMR).
Assumptions	<ul style="list-style-type: none"> • The referral system is interfaced with the general practice electronic health record system, the billing system and the appointment system. • The general practice EMR system is the source for the patient's medical information.
Pre-conditions	<ol style="list-style-type: none"> 1. The patient is known to the general practice (i.e. exists in the practice's EMR system) and already has a medical record. 2. The general practitioner is logged-on to the general practice EMR system.
Triggers	The patient presents to the general practitioner.
Basic Flow of Events	<ol style="list-style-type: none"> 3. The general practitioner confirms that the patient's demographic details (which includes IHI) are correct. 4. The general practitioner accesses the relevant clinical information.

Use Case #	UC-002
	5. The use case ends.
Alternative Flow of Events	None
Post-conditions	The general practitioner accesses the EMR system for the patient's clinical information.
Notes	None.

Table 6 Access Electronic Medical Record

3.3.1.3 Assess Patient

Use Case #	UC-003
Use Case Name	Assess Patient
Goal	To conduct a clinical assessment of the patient.
Primary Actor Stakeholders	<ul style="list-style-type: none"> Referrer (general practitioner). Patient. Local general practice Electronic Medical Record system (EMR).
Assumptions	<ul style="list-style-type: none"> The referrer enters patient findings in the EMR. The general practice EMR system is the source for the patient's medical information.
Pre-conditions	<ol style="list-style-type: none"> The patient is known to the general practice (i.e. exists in the practice's EMR system) and already has a medical record. The general practitioner is logged-on to the general practice EMR system, and has accessed the relevant patient's EMR.
Triggers	The patient presents to the general practitioner.
Basic Flow of Events	<ol style="list-style-type: none"> The general practitioner assesses the patient. The general practitioner updates the patient's medical record with the findings as required. The general practitioner and the patient determine the best plan of action to treat the patient's condition/s. The general practitioner comes to the decision that a referral to a specialist is required, in consultation with the patient. The use case ends.
Alternative Flow of Events	<p>None. AF1- A referral is not required.</p> <p>4a. The GP determines that a referral is not required.</p> <p>4b. The use case ends.</p>
Post-conditions	The patient has been assessed and the general practitioner has recorded the outcome of that assessment in the patient EMR...
Notes	None.

Table 7 Assess Patient

3.3.1.4 Select Specialist

Use Case #	UC-004
Use Case Name	Select Specialist
Goal	The general practitioner and the patient select the appropriate specialist for the referral.
Primary Actor Stakeholders	<ul style="list-style-type: none"> • Referrer (general practitioner). • Local general practice Electronic Medical Record system (EMR). • Patient. • Provider services directory.
Assumptions	<ul style="list-style-type: none"> • The referrer enters patient findings in the EMR.
Pre-conditions	<ol style="list-style-type: none"> 1. The general practitioner is logged-on to the general practice EMR system. 2. The general practice has access to a local provider services directory. 3. The patient has been assessed by the general practitioner.
Triggers	The decision to refer to a specialist has been made by the general practitioner and the patient.
Basic Flow of Events	<ol style="list-style-type: none"> 1. The general practitioner opens the available provider directory services available on his/her desktop. 2. The general practitioner offers the patient a choice of specialists if available and appropriate 3. The general practitioner and patient select the specialist.
Alternative Flow of Events	None.
Post-conditions	A specialist is selected.
Notes	None.

Table 8 Select Specialist

3.3.1.5 Send Referral

Use Case #	UC-005
Use Case Name	Send Referral
Goal	To send the referral to the specialist.
Primary Actor Stakeholders	<ul style="list-style-type: none"> • Referrer (general practitioner). • Local general practice Electronic Medical Record system (EMR). • Patient. • Local general practice referral system.
Assumptions	<ul style="list-style-type: none"> • The general practice EMR system is the source for the patient's medical information. • The general practice uses the local general

Use Case #	UC-005
	practice EMR to complete referrals.
Pre-conditions	<ol style="list-style-type: none"> 1. The general practitioner is logged-on to the general practice EMR system. 2. The general practitioner is logged-on to the local referral system.
Triggers	The general practitioner has decided to send the referral to the specialist.
Basic Flow of Events	<p>The general practitioner opens the correct referral template for the selected specialist in the referrals system.</p> <ol style="list-style-type: none"> 3. The referrals system auto-populates available information from the general practice EMR system. 4. The referrals system requests the general practitioner to validate the auto-populated information. 5. The general practitioner reviews the auto-populated information in the referral. 6. The general practitioner edits the auto-populated information if required. 7. The general practitioner validates the auto-populated information in the referral. 8. The general practitioner completes the rest of the referral template, adding more information if required. 9. The referrals system encrypts the content within message payloads. 10. The general practitioner sends the referral after obtaining informed consent from the patient. 11. The referral system sends the referral to the specialist system.
Alternative Flow of Events	<p>AF1 The general practitioner gives the patient a copy of the referral.</p> <p>10a The patient takes the printed referral and chooses to make the referral appointment him/herself.</p>
Post-conditions	The referral is sent to the referee.
Notes	None.

Table 9 Send Referral

3.4 Requirements - Assembly and Dispatch

The following table collects requirements by number, priority, source point within this document, type and offers a brief description.

Req #	Priority	Source/Section	Type	Description
BR.001	Desirable	2.4	Department of Veterans' Affairs	If there are any additional information requirements needed to support the e-referral (i.e. DVA requirements) they shall be supported by the referrals system.
BR.002	Business Critical	3.2 3.3.1.5	General practitioner system	The general practitioner system shall allow the general practitioner to review, validate and/or edit details on the referral template before sending.
BR.003	Highly Desirable	3.2 3.3.1.5	General practitioner system	The referrer shall have the provision to print the completed referral letter to be given as a copy to the patient.
BR 004	Business Critical	3.2 3.3.1.5	General practitioner system	The auto populated information in the referral template shall be the same as the information stored in the general practitioner system.
BR.005	Highly Desirable	3.2 3.3.1.5	General practitioner system	The referral application shall be part of the General Practice electronic medical record system. If the referral application is external to the General Practice EMR, it must be interfaced to the General Practice electronic medical record system.
BR.006	Desirable	3.2 3.3.1.4	General practitioner system	The general practitioner system shall provide the referrer with options to select appropriate providers and services to refer to including but not limited to the following options: <ul style="list-style-type: none"> • Searching one or more Provider Services Directories • Selecting entries from a Favourites list.
BR.007	Desirable	3.2 3.3.1.5	General practitioner system	The general practitioner system shall be able to support multiple methods of sending referrals including existing methods such as email and fax.
BR.008	Highly Desirable	3.2 3.3.1.5	Medicare Australia	The general practitioner system shall notify the user if the mandatory fields required for referral validation at the recipient's end are not filled in.
BR.009	Desirable	3.2	Investigation	The electronic referral message shall have the capability to

Req #	Priority	Source/ Section	Type	Description
		3.3.1.5		support the sending of additional results/investigation reports to the referee in the form of attachments.
BR.010	Desirable	3.2	Privacy	If the referral contains information of a sensitive nature to the patient, the general practitioner system shall provide the capability for the user to deem it as 'Sensitive'
BR.011	Desirable	3.2	Security	Systems storing referrals shall maintain an audit log of user access to all individual records.
BR.012	Business Critical	3.2	Privacy- Data quality	The referral application shall not allow the user to change referral data after the referral has been sent, unless it is marked as an updated referral.
BR.013	Highly Desirable	3.2	Referral letter	Every completed referral shall have a version number; which must be a whole number.
BR.014	Business Critical	3.2	Referral letter	The referral shall be encrypted so that only the referee organisation can decrypt and open the referrals.
BR.015	Desirable	3.2 3.3.1.5	Referral letter	The referral generation system shall use the patient's unique identifier (IHI) to auto populate demographic details, past history, past procedures and current medications in the referral template from the patient record in the local EMR.
BR.016	Desirable	3.2 3.3.1.5	Referral letter	The referral generation system shall alert the user to verify if the auto populated patient details are relevant and match those in the general practitioner system.
BR.017	Desirable	3.2	Referral letter	The referral generation system shall be able to support a range of referral templates to meet the different requirements of the specialist recipient organisations.
BR.018	Highly Desirable	3.2 3.3.1.5	Referral letter	Where information for mandatory (auto populated) fields is not available from the source system, the system shall alert the user.
BR.019	Desirable	3.2	Referral letter	The referral generation system shall automatically use the correct referral template based on the selected service and recipient. This may require the attachment of additional information to a 'core' referral.

Req #	Priority	Source/ Section	Type	Description
BR.020	Business Critical	3.2	Referral letter	The referral shall contain the HPI-I and HPI-O of the referrer and referee.
BR.021	Business Critical	3.2	Unique referral identifier	The unique identifier generated by the general practitioner system shall persist through the life cycle of the e-Referral. All subsequent activity arising from the originating e-Referral will be linked by this identifier.
BR.022	Desirable	3.2	Unique referral identifier	All referrals originally sent by the application shall be required to have system derived auto generated referral episode identifier.
BR.023	Business Critical	2.3	Digital signature	The referral shall be signed.
BR.024	Business Critical	2.3	Encryption	The referral shall be encrypted before transmission by the referrer.
BR.025	Business Critical	2.5.2.3	Security	Access to the GP practice clinical information systems should provide the controls to ensure that the individual who sends the referral message is identical to the referrer specified within the referral message.

Table 10 Requirements - Assembly and Dispatch

3.5 Receipt and Assimilation (Interim)

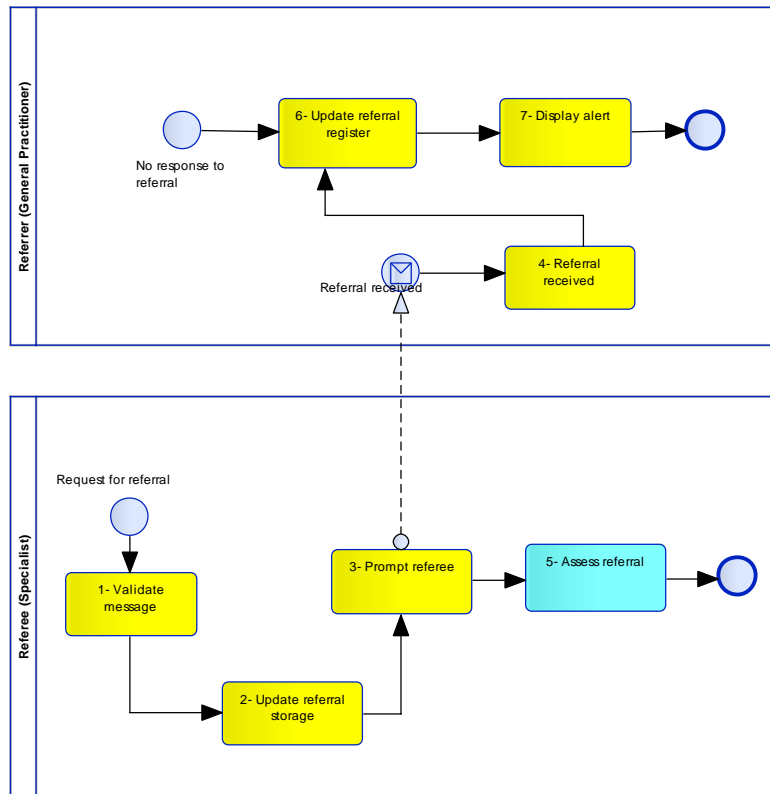


Figure 11 Receipt and Assimilation (Interim)

- Legend
 - Light Blue = Manual tasks
 - Yellow = System tasks

Business Process	Receipt and Assimilation (Interim)
Description	This process description describes the steps in receiving a referral from the specialist's end.
Business Description	<ol style="list-style-type: none"> 1. Validate message <ol style="list-style-type: none"> a) The referral message is validated to check if the referrer is authentic (valid HPI-I, HPI-O of sender). b) The referral message is validated by checking if it conforms to messaging syntax rules. 2. Update Referral storage <ol style="list-style-type: none"> a) The referral storage (referral register) is updated with the new referral. 3. Prompt referee <ol style="list-style-type: none"> a) The specialist system informs the user that there is a referral waiting to be read. 4. Referral received <ol style="list-style-type: none"> a) A message of 'referral received' is sent from the

Business Process	Receipt and Assimilation (Interim)
	<p style="text-align: right;">specialist system to the General Practice system.</p> <p>5. Assess referral</p> <p style="padding-left: 40px;">a) The specialist looks at the referral request and particularly at the 'Reason for Referral' and 'Service requested' and decides if the referral is valid. The specialist might also receive investigation results as a message which could help in making this decision.</p> <p style="padding-left: 40px;">b) The specialist makes a decision if the referral is valid for the following reasons:</p> <p style="padding-left: 80px;">i) The 'Service requested' is one of the services provided by the specialist clinic.</p> <p style="padding-left: 80px;">ii) The Specialist is available during the times requested by the general practitioner.</p> <p>6. Update referral register</p> <p style="padding-left: 40px;">a) The referral register is constantly updated as 'accept', 'decline', or 'more information' messages arrive, or if no response is received.</p> <p>7. Display alert</p> <p style="padding-left: 40px;">a) The general practitioner system sends off an alert if there has been no response to a referral. The business rules behind this alert are set by each practice for each individual referral.</p>

Table 11 Receipt and Assimilation (Interim)

3.6 Referral Receipt and Processing (Future)

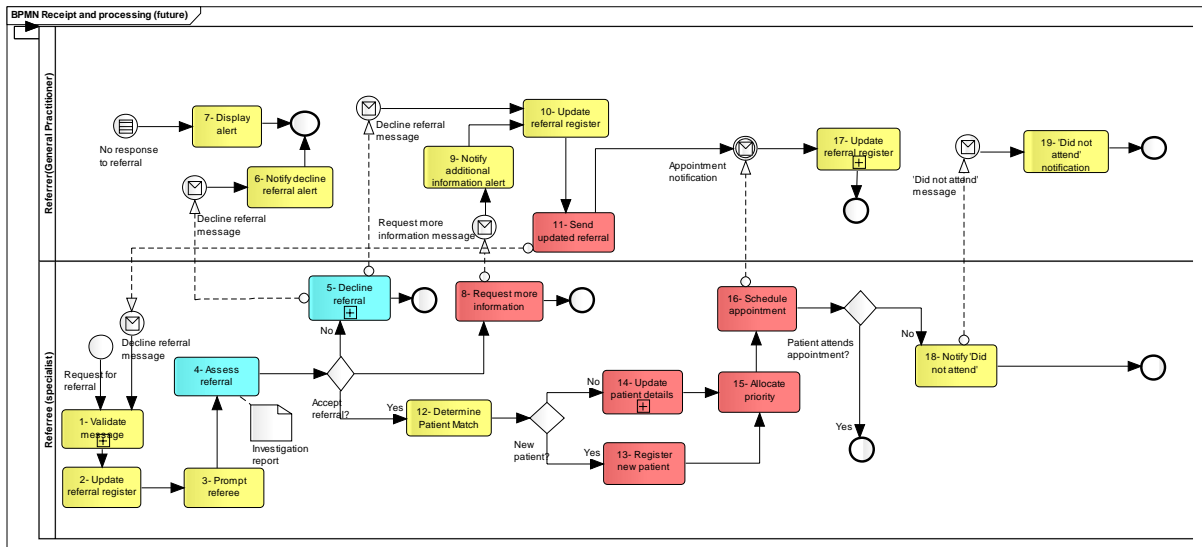


Figure 12 Referral Receipt and Processing (Future)

- Legend
 - Light Blue = Manual tasks
 - Brick = System + Manual tasks
 - Yellow = System tasks.

Business Process	Referral Receipt and Processing (Future)
Description	This process description outlines the sequence of steps in receiving a referral from the specialist's end, in the Future state.
Business Description	<ol style="list-style-type: none"> 1. Validate message <ol style="list-style-type: none"> a) The referral message is validated to check if the referrer is authentic (valid HPI-I, HPI-O of sender). b) The referral message is validated by checking if it conforms to messaging syntax rules 2. Update referral register <ol style="list-style-type: none"> a) The referral storage (referral register) is updated with the new referral. 3. Prompt referee <ol style="list-style-type: none"> a) The specialist system informs the user that there is a new referral waiting to be read. 4. Assess referral <ol style="list-style-type: none"> a) The specialist determines the validity of the referral. 5. Decline referral <ol style="list-style-type: none"> a) The specialist may decline the referral. b) The decline-referral letter is generated during this

Business Process	Referral Receipt and Processing (Future)
	<p style="text-align: right;">process and returned to the general practitioner.</p> <ol style="list-style-type: none"> 6. Notify decline referral alert <ol style="list-style-type: none"> a) The general practitioner system receives a decline message from the specialist system. 7. Display alert <ol style="list-style-type: none"> a) The general practitioner system sends off an alert that there has been no response to a referral. The business rules behind this alert are set by each practice for each individual referral. 8. Request more information <ol style="list-style-type: none"> a) The specialist may request more information on the referral. 9. Notify additional information alert <ol style="list-style-type: none"> a) The general practitioner system alerts the general practitioner to the specialist's request for more information and details of the information to be sent. 10. Update referral register <ol style="list-style-type: none"> a) The referral register is constantly updated as 'accept', 'decline', or 'more information' messages arrive, or if no response is received 11. Send updated referral <ol style="list-style-type: none"> a) The general practitioner reviews the request for more information and updates the referral with these details. The details could be: <ol style="list-style-type: none"> i) Confirming any or all details in the original referral ii) Additional information about one or more components of the referral iii) Additional investigations to be carried out iv) Additional information required by the specialist clinic b) The updated referral then starts the process again from step 1 (Validate message) 12. Determine patient match <ol style="list-style-type: none"> a) The patient referral is accepted b) The specialist system carries out a patient match when

Business Process	Referral Receipt and Processing (Future)
	<p>the patient details are entered by the specialist clinic to verify if the patient is known to the clinic.</p> <p>13. Register new patient</p> <p>a) The specialist system does not recognise the patient details. The specialist/front desk/administration team then registers the patient as a new patient.</p> <p>14. Update patient details</p> <p>a) The specialist or the specialist clinic administration staff verifies patient details and updates them (if required) with the referral details.</p> <p>15. Allocate priority</p> <p>a) The specialist may assign a priority to the referral.</p> <p>16. Schedule appointment</p> <p>a) The specialist makes an appointment date and time as per assigned priority. The appointment notification letter is generated from this activity and sent to the patient, and a copy to the general practitioner.</p> <p>17. Update referral register</p> <p>a) The referral register is constantly updated as 'accept', 'decline', or 'more information' messages arrive, or if no response is received.</p> <p>18. Notify 'Did not attend'</p> <p>a) The patient does not attend his/her appointment and this sets off an alert in the specialist system. If this is correct, this message is sent to the general practitioner system.</p> <p>19. 'Did not attend' notification</p> <p>a) The confirmed alert that the patient has not attended their appointment is received by the general practitioner system, and the general practitioner is notified by means of an alert which is also stored in the patient's individual records in the Electronic Medical Record.</p>

Table 12 Referral Receipt and Processing (Future)

3.7 Use Cases

3.7.1 General Practitioner to Private Specialists

3.7.1.1 Accept Referral

This use case reflects the Future state where the messages of 'accept', 'decline', 'cancelled', 'request more information', 'appointment details' will be discussed in greater detail in future releases.

Use Case #	UC-006
Use Case Name	Accept Referral
Goal	To accept a referral request for the purpose of assigning an appointment date and time.
Primary Actor Stakeholders	<ul style="list-style-type: none"> • Referee (specialist). • Referee administration team. • Referee's referral system. • Referee's patient administration system.
Assumptions	<ul style="list-style-type: none"> • The referee has a patient administration system and electronic appointment booking system. • The referee's patient administration system and appointment system are interfaced.
Pre-conditions	<p>The referee has the authority to accept referrals.</p> <p>The referee is logged into the referral system.</p>
Triggers	A referral request is received by the referee and has been assessed.
Basic Flow of Events	<ol style="list-style-type: none"> 1. The referee reads through the referral request. 2. The referee checks the referral request for all required information. 3. The referee accepts the referral. 4. The use case ends.
Alternative Flow of Events	<p>AF 1: The referee declines the referral.</p> <p>3 a. The referee ascertains that the referral request has to be declined for reasons as specified by the business rules.</p> <p>3 b. The specialist contacts the referrer and advises that the referral has been declined.</p> <p>AF 2: The referee requests more information.</p> <p>2 a. The referee checks the referral request for all required information.</p> <p>2 b. The referee determines that, although they will accept the referral, there is insufficient information in the referral to commence treatment.</p> <p>2 c. The referee accepts the referral but also sends a request to the referrer for more information.</p> <p>2 d. The referee does not make a decision on the status of the referral and sends a request to the</p>

Use Case #	UC-006
	<p>referrer for more information.</p> <p>2 e. The general practitioner updates the referral with the information requested by the referee.</p> <p>2 f. The general practitioner sends the updated referral to the referee.</p>
Post-conditions	The referral request is marked as 'received', 'accepted', 'declined', 'more information requested', 'appointment details', or 'cancelled'.
Notes	Cancellation can occur at any step in the Basic Flow of Events since the referrer initiates this action.

Table 13 UC-006 Accept Referral**3.7.1.2 Assess Referral**

Use Case #	UC-007
Use Case Name	Assess Referral
Goal	To conduct an assessment of the referral request and, if required, assign a priority.
Primary Actor Stakeholders	<ul style="list-style-type: none"> Referee (specialist). Patient administration system (PAS). Referral-receiving system. Referee administration team. General practitioner referral system.
Assumptions	<ul style="list-style-type: none"> The referee has a patient administration system and electronic appointment booking system. The referral receiving system is interfaced with the referee patient administration system. The patient has been assigned an IHI.
Pre-conditions	<ul style="list-style-type: none"> The referee has the authority to assess referrals. The referee is logged-on to the referral system. The referral has been accepted.
Triggers	A referral request is received by the referral receiving system.
Basic Flow of Events	<ol style="list-style-type: none"> The specialist referral receiving system notifies the general practitioner referral system that a referral has been received. The referee opens the referral request. The referee assesses the referral. The referee prioritises the referral if required. The referee informs their administration team. The use case ends.
Alternative Flow of Events	None
Post-conditions	The referral request is assessed for the purpose of assigning priority. The priority is then given to the referral request.
Notes	Allocating priority is usually only done in public hospital clinics. Individual private practitioners often see each referral

Use Case #	UC-007
	in the order received, or to accommodate other factors (e.g. availability).

Table 14 UC-007 Assess Referral**3.7.1.3 Patient Match**

This use case reflects the Future state.

Use Case #	UC-008
Use Case Name	Patient Match
Goal	To match the patient to existing records, if any, in order to update the records.
Primary Actor Stakeholders	<ul style="list-style-type: none"> Referee administration team. Referral receiving system. Patient administration system.
Assumptions	<ul style="list-style-type: none"> The referee has a patient administration system and referral receiving system. The referral receiving system is interfaced with the referee's patient administration system.
Pre-conditions	<ul style="list-style-type: none"> The referee's administration team are able to match and verify patient details (IHI) with existing records held on the patient administration system. The referee's administration team is logged-on to the patient administration system. The patient has been allocated an IHI.
Triggers	A referral request is received by the referee, and has been assessed and accepted by the referee.
Basic Flow of Events	<ol style="list-style-type: none"> The referee administration team receives a message that a referral is accepted and awaiting an appointment. The referee administration team enters the patient's IHI in the search patient field. The patient administration system displays with the search results matching the patient to existing patient records. The referee administration team accesses the patient details The patient administration system brings up the patient details. The referee administration team validates that it is the right patient. The administration team updates the patient details with the referral request. The use case ends.
Alternative Flow of Events	<p>AF 1: The patient is new and not known to the referee.</p> <ol style="list-style-type: none"> The patient administration system displays search results. The search results show that the patient

Use Case #	UC-008
	<p>details do not come up with a match.</p> <p>4 c. The administration team registers the new patient using the patient administration system.</p> <p>4 d. The administration team enters the patient' details from the referral request and thereby registers the patient.</p>
Post-conditions	The patient's details along with the referral request are updated on the patient administration system.
Notes	None.

Table 15 UC-008 Patient Match

3.7.2 General Practitioner to Public Specialist

3.7.2.1 Accept Referral

This use case reflects the Future state where the messages of 'accept', 'decline', 'cancelled', 'request more information', 'appointment details'.

Use Case #	UC-010
Use Case Name	Accept Referral
Goal	To accept a referral request for the purpose of assigning an appointment date and time.
Actor(s)	<ul style="list-style-type: none"> Referee (public outpatient specialist and/or person with authority to: manage the referral list for appointment-scheduling at the relevant outpatient clinic; request further information, etc.). Referee administration team. Relevant referral-receiving system. Relevant patient administration system (PAS). Patient.
Assumptions	<p>The referee has a patient administration system and an electronic appointment booking system.</p> <p>The referral receiving system is interfaced with the referee patient administration system.</p>
Pre-conditions	<p>The referee has the authority to accept referrals.</p> <p>The referee is logged-on to the referral system.</p>
Triggers	A referral request is received by the referee and has been assessed.
Basic Flow of Events	<ol style="list-style-type: none"> The referee reads through the referral request. The referee checks the referral request for all required information. The referee accepts the referral. A message of 'referral accepted' is sent back to the referrer. The referee administration team confirms the appointment date and time with the patient.
Alternative Flow of	AF 3: The referee declines the referral.

Use Case #	UC-010
Events	<p>3 a. The referee checks the referral request for all required information.</p> <p>3 b. The referee ascertains that the referral request will need to be declined (for whatever reason).</p> <p>3 c. The specialist system sends a 'decline' message to the general practitioner's system.</p> <p>3 d. The specialist clinic informs the patient.</p> <p>AF 3: The referee requests for more information.</p> <p>3 a. The referee checks the referral request for all required information.</p> <p>3 b. The referee determines that there is not enough information to make a decision.</p> <p>3 c. The referee accepts the referral but also sends a request to the referrer for more information.</p> <p>3 d. The referee does not make a decision on the status of the referral and sends a request to the referrer for more information.</p> <p>3 e. The specialist system sends a 'more information required' message to the general practitioner system.</p> <p>3 f. The general practitioner updates the referral with the information requested by the referee.</p> <p>3 g. The general practitioner sends the updated referral to the referee.</p> <p>AF 3: The referrer cancels the referral.</p> <p>5 a. A message of 'Referral cancelled' is sent to the referee.</p>
Post-conditions	The referral request is marked as 'accepted', 'declined', 'more information requested' or 'cancelled'.
Notes	Cancellation can occur at any step in the Basic Flow of Events since the referrer initiates this action.

Table 16 UC-010 Accept Referral

3.7.2.2 Assess Referral

Use Case #	UC-009
Use Case Name	Assess Referral
Goal	To conduct an assessment of the referral request and, if required, assign a priority.
Primary Actor Stakeholders	<ul style="list-style-type: none"> • Referee (public outpatient specialist). • Hospital patient administration system (PAS). • Referee clinic patient administration system. • Hospital referral system.

Use Case #	UC-009
	<ul style="list-style-type: none"> Referee clinic referral receiving system. Administration team. General practitioner referral system.
Assumptions	<ul style="list-style-type: none"> The referee has a patient administration system and electronic appointment booking system. The referral receiving system is interfaced with the referee patient administration system. The patient has been assigned an Individual Health Identifier (IHI).
Pre-conditions	<p>The referee has the authority to assess referrals.</p> <p>The referee is logged-on to the referral system.</p>
Triggers	A referral request is received by the referral receiving system.
Basic Flow of Events	<ol style="list-style-type: none"> The referral receiving system sends a prompt that a referral has been received. The referee opens the referral request. The referee assesses the referral. The referee prioritises the referral. The referee informs the administration team. The use case ends.
Alternative Flow of Events	None.
Post-conditions	The referral request is assessed for the purpose of assigning priority. The priority is marked against the referral request.
Notes	Allocating priority is usually only done in public hospital clinics. Individual private practitioners usually see each referral as per request and available time.

Table 17 UC-009 Assess Referral

3.7.2.3 Patient Match

Use Case #	UC-011
Use Case Name	Patient Match
Goal	To match the patient to existing records, if any, in order to update the records.
Actor(s)	<ul style="list-style-type: none"> Referee administration team (public outpatient). Referral receiving system. Patient administration system.
Assumptions	<ul style="list-style-type: none"> The referee has a patient administration system and a referral receiving system. The referral receiving system is interfaced with the referee's patient administration system.
Pre-conditions	<ul style="list-style-type: none"> The referee's administration team have a method for matching and verifying patient details (IHI) with existing records held on the patient administration system.

Use Case #	UC-011
	<ul style="list-style-type: none"> The referee's administration team is logged-on to the patient administration system. The patient has been assigned an IHI.
Triggers	A referral request is received by the referee, and has been assessed and accepted by the referee.
Basic Flow of Events	<ol style="list-style-type: none"> The referee administration team receives a message prompt that a referral is accepted and awaiting an appointment. The referee administration team enters the patient's IHI in the search patient field. The patient administration system comes up with the search results matching the patient to existing patient records. The referee administration team clicks on the patient details tab. The patient administration system brings up the patient details screen. The referee administration team validates that it is the right patient. The administration team updates the patient details with the referral request.
Alternative Flow of Events	<p>AF 1: The patient is new and not known to the referee.</p> <ol style="list-style-type: none"> The patient administration system comes up with search results. The search results show that the patient details (IHI) does not match with any details held in the patient administration system. The administration team click on the 'Register new patient' tab. The patient administration system opens up the 'Register new patient' screen. The administration team enters the patient' details from the referral request and register the patient.
Post-conditions	The patient's details associated with the referral request are updated on the patient administration system.
Notes	None.

Table 18 UC-011 Patient Match

3.8 Requirements - Receipt and Assimilation

The following table collects requirements by number, priority, source point within this document, type and offers a brief description. Priorities are discussed in Section 1.11.3.

Req #	Priority	Source	Type	Description
BR.026	Desirable	3.5/3.6	Referral letter	Every amended or updated referral shall have an incremented version number.
BR.027	Desirable	3.5	General	The referrals system at the general

Req #	Priority	Source	Type	Description
			practitioner system	practitioner's end shall ensure that the data auto populated in it is the same as the data held in the general practitioner system.
BR.028	Desirable	3.6	General practitioner system	The general practitioner shall be able to look at all referrals sent by him/her.
BR.029	Desirable	3.6	Specialist System	The specialist system shall match the received referral to the patient's records (if already existing)
BR.030	Desirable	3.5	Specialist system	The specialist system shall have the capability of sending a message an acknowledgement of receipt message.
BR.031	Desirable	3.6	Specialist system	The specialist system shall be able to correlate versions of referral with the unique referral identifier to the same referral document set belonging to the same referral episode
BR.032	Desirable	3.6	Referral Register	The general practitioner system user shall be able to access the referral from a repository or a patient record view.
BR.033	Desirable	3.5	Specialist System	When the specialist system accepts the patient's unique identifier or patient's details, it shall be able to match details if the patient is known and displays the patient details.
BR.034	Desirable	3.5	Specialist System	The specialist application shall promote safety and quality by highlighting where data within the referral differs from data held within the specialist application.
BR.035	Desirable	3.6	Specialist System	The specialist system shall be able to generate user alerts to notify if the status of an incoming referral has not changed within a set time period.
BR.036	Desirable	3.6	Specialist system	The specialist system shall provide the capability to apply access restrictions to a referral message based on sensitive information set by the patient within the referral.
BR.037	Desirable	3.6	Specialist System	For situations where further details (e.g. latest test results) are being sent separately, the specialist system shall be able to automatically link the initial referral with later related message with the help of a referrals unique identifier.
BR.038	Desirable	3.6	General practitioner system	The general practitioner system shall give the user the ability to ascertain the status of the Referral

Req #	Priority	Source	Type	Description
				as it is processed by the referee or specialist system.
BR.039	Desirable	3.5	General practitioner system	The general practitioner system shall issue an alert if a referral is not marked as received by the specialist system. This alert system must be fully configurable to allow the general practitioner to set alert conditions.
BR.040	Desirable	3.5	General practitioner system	The general practitioner system shall be capable of receiving system alerts.
BR. 041	Business Critical	3.7.1.2	Specialist system	The referral message shall persist in its entirety in the receiving system. For further information on retention of referrals please refer to section 2.2.2.1

Table 19 Requirements - Receipt and Assimilation

Definitions

This section explains the specialised terminology used in this document.

Shortened Terms

This table lists abbreviations and acronyms in alphabetical order.

Term	Description
CC	Core Connectivity
CI	Clinical Information
CT	Clinical Terminology
EHR	Electronic Health Record
EMR	Electronic Medical Record
GP	General Practitioner
HI Service	Healthcare Identifiers Service
HPI	Healthcare Provider Identifier
ICT	Information and Communication Technology
IHI	Individual Healthcare Identifier
NASH	National Authentication Service for Health
PAS	Patient Administration System
SDT	Structured Document Template
SIL	Service Instance Locator
SNOMED CT	Systemised Nomenclature of Medicine, Clinical Terminology
SNOMED CT-AU	Systemised Nomenclature of Medicine, Clinical Terminology - Australian Extension

Glossary

This table lists specialised terminology in alphabetical order.

Term	Description
Atomic	The least portion of a thing or quality.
Business Architect	A Business Architect is anyone who looks at the way work is being directed and accomplished, and then identifies, designs and oversees the implementation of improvements that are harmonious with the nature and strategy of the organisation. Source: http://www.businessarchitects.org
Demographic Record	These are the complete details of the IHI Record. This record contains more information about an individual than a summary record, which is disclosed during the search process. (Subject to any special conditions defined).
Department of Health and Ageing	The Department's role is to achieve the Australian Government's priorities (outcomes) for health and ageing. This is done by developing evidence-based policies, managing programs and undertaking research and regulation activities.
Development Team	The Developer writes the code for the specifications that the Development leads provide. Source: http://www.developer.com
Digital Identity	The electronic representation of an individual or provider's actual

Term	Description
	identity that includes a unique healthcare identifier, associated identifying attributes, permissions, and a supporting token or login (token or login being credentials).
Electronic Health (e-health)	The process of using ICT (information and communication technology) to enable better healthcare outcomes. A longitudinal collection of personal health information concerning a single individual, entered or accepted by healthcare providers, and stored electronically. The information is organised primarily to support continuing efficient quality healthcare and is stored and transmitted securely. The Electronic Health Record (EHR) contains information which is retrospective, concurrent and prospective.
Electronic Health Record	A longitudinal collection of personal health information in digital form, usually based on an individual's local medical records as entered or accepted by healthcare providers, which can be electronically distributed over a number of sites or aggregated at a particular source. The information is organised primarily to support continuing, efficient and quality health care. The record is under control of the consumer and is stored and transmitted securely.
Electronic Medical Record	A history of the ongoing medical status of a given individual typically created and maintained in digital form by an organisation or individual responsible for care. Consequently, EMR's tend not to be shared in a standardised manner across state boundaries, unlike Electronic Health Records which are federated and standardised.
Endpoint	Where a web service connects to the network. Source: http://www.looselycoupled.com/glossary/endpoint
Gatekeeper	Individual nominated by the referee (specialist) to read and organise referrals before they are forwarded to the referee. The gatekeeper may be given the authority to decide if the referral is appropriate, valid, complete and/or request further tests and/or investigations on behalf of the specialist.
General Practice	General practice is the provision of primary continuing comprehensive whole-patient medical care to individuals, families and their communities. (RACGP)
General Practitioner	A practicing physician who does not specialize in any particular field of medicine (Webster's New World College Dictionary)
General Practitioner System (Health Information System)	Repository of information regarding the health of a subject of care in computer processable form, stored and transmitted securely, and accessible by multiple authorised users. It has a commonly agreed logical information model which is independent of EHR (electronic health record) systems. Its primary purpose is the support of continuing, efficient and quality integrated healthcare and it contains information which is retrospective, concurrent and prospective.
Healthcare Event	An instance of providing healthcare to an individual.
Healthcare Identifiers Service (HI Service)	The service which assigns and maintains healthcare identifiers.
Healthcare Provider Identifier Individual (HPI-I)	The unique identifier number that is assigned to a Healthcare Provider Individual.
Healthcare Provider Identifier Organisation (HPI-O)	The unique identifier number that is assigned to a Healthcare Provider Organisation.
Healthcare Provider Organisation	Organisation involved in the direct provision of health activities. This may include departments, sites or location within a Provider Organisation (e.g. hospital radiology department).
Individual Healthcare Identifier	The unique healthcare identifier for healthcare individuals (subject of care) within the healthcare system. The unique identifier is a number.
Interoperability	The ability of software and hardware on multiple machines from multiple vendors to communicate. Source: The Free On-line Dictionary of Computing. Denis Howe. 21 Apr. 2008. From: Dictionary.com -

Term	Description
	http://dictionary.reference.com/browse/Interoperability
Medicare Australia	Australian government organisation that administers Medicare, the Pharmaceutical Benefits Scheme (PBS) and a range of other Commonwealth programs.
Medicare Australia Provider Directory System	The system that records information about healthcare providers whose services directly or indirectly generate a claim for Medicare benefits. It holds the information concerning the identity of the provider, eligibility under Medicare arrangements, and the information necessary for the processing and payment of Medicare claims.
Patient (Healthcare Individual)	These are the individuals who are, or could be, the subjects of care in the context of a healthcare event.
Patient Administration System	A system used by Healthcare Providers to support scheduling, financial and clinical management within a healthcare organisation.
Patient History	Information relating to a patient, comprising not only earlier and actual diseases but also hereditary disposition, habits, family relations, work and social status.
Provider Directory Service	This is a provider domain, read only listing of provider information used for facilitating healthcare. It is a white pages of Healthcare Providers, Provider Organisations and provider relationships on a voluntary basis. It does not list Healthcare Individuals and is not available to them.
Solutions Architect	The Solutions Architect is typically responsible for matching technologies to the problem being solved. Source: http://www.developer.com
Specialist	A health practitioner who specialises in and practices one branch of medicine.
Specialist System	IT resources used by specialists to manage patient data and send clinical information to other care providers.
SDT	Structured document template.
Technical Architect	The technical architect is responsible for transforming the requirements into a set of architecture and design documents that can be used by the rest of the team to actually create the solution. Source: http://www.developer.com

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 use the most recent versions of these documents.

Package Documents

The documents listed below are part of the suite delivered in the e-Referrals Package.

e-Referrals Package Documents			
[REF]	Document Name	Publisher	Link
[ER-ES2011]	e-Referrals Release 1.1 - Executive Summary v1.1	NEHTA 2011	http://www.nehta.gov.au/e-communications-in-practice/ereferral Open menu: e-Referrals Package
[ER-RN2011]	e-Referrals Release 1.1 -Release Notification v1.1		
[ER-BRS2011]	e-Referrals Release 1.1 -Business Requirements Specification v1.1		
[ER-SD2011]	e-Referrals Release 1.1 -Solution Design v1.1		
[ER-CIC2011]	e-Referrals Release 1.1 - Core Information Components v1.1		
[ER-TSS2011]	e-Referrals Release 1.1 - Technical Service Specification v1.1		

References

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

Reference Documents			
[REF]	Document Name	Publisher	Link
[AS4700.6-2006]	Australian Standard 4700.6-2006 "Implementation of Health Level Seven (HL7) Version 2.4, Part 6: Referral, Discharge and health record messaging"	Standards Australia 2006	http://infostore.saiglobal.com/store2/Details.aspx?ProductID=317581
[COO2010]	Health Identifier Service - Concept of Operations v2.0	NEHTA 2010	http://www.nehta.gov.au/connecting-australia/healthcare-identifiers Open menu at bottom of web page: 'Concept of Operations'
[ETA1999]	Electronic Transactions Act 1999	Australian Govt. 1999	http://www.comlaw.gov.au/comlaw/Legislation/ActCompilation1.nsf/0/11866D05A55BE8F6CA25730200002C72?OpenDocument
[HIA1973]	Health Insurance Act 1973	Australian Govt. 1973	http://www.comlaw.gov.au/comlaw/management.nsf/lookupindexpagesbyid/IP200401412?OpenDocument
[MBSB2010]	Medicare Benefits Schedule Book, November 2009	Australian Govt. Dept. of Health &	http://www.health.gov.au/internet/mbsonline/publishing.nsf/Content/Medicare-Benefits-

Reference Documents			
		Ageing 2009	Schedule-MBS-1

Related Reading

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

Related Documents			
[REF]	Document Name	Publisher	Link
[ER-SDT2011]	e-Referrals Structured Document Template v1.0	NEHTA 2011	Scheduled for release in 2011.
[NEHTAWEB]	NEHTA Web Site	NEHTA	http://www.nehta.gov.au/


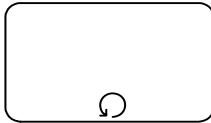

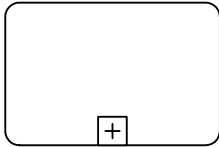

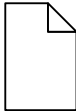
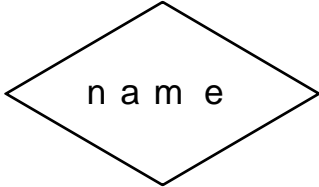

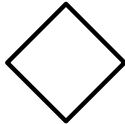
Appendix A: Privacy

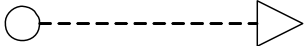

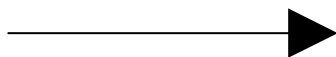

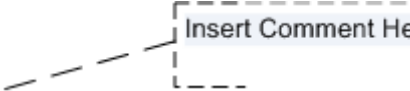
A.1 Common privacy principles for the collection and handling of information

#	Common Privacy Principle	General Compliance 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	Allowed
	Use and Disclosure Secondary Purposes	Secondary purposes are directly related to primary purpose and within individual's reasonable expectations; or Consent is obtained; or Required or authorised by law; or Serious or imminent threat to any individual's life, health or safety.
3	Data Quality	Information is accurate, complete and up to date.
4	Data Security	Protection from misuse, loss and unauthorised access, modification and disclosure;
5	Openness	Provide a document that clearly sets out policies on handling personal information.
6	Access and Correction	On request and excluding certain circumstances, provide individuals with access to their personal and health information and/or; Where reasonable, correcting health information at the request of the individual.
7	Identifiers	Assignment of identifiers must be necessary and/or; Adoption of identifiers must be in accordance with prescribed circumstances.
8	Anonymity	Allow anonymity where lawful and practical.
9	Transborder Data Flows	Transfer if reasonable belief recipient is subject to comparable information privacy scheme; or Transfer with individual's consent; or Transfer is necessary for contract at the request of, or to benefit the individual.

Table 20 Common privacy principles for the collection and handling of information

Appendix B: Business Process Modelling Notation

Element	Notation	Description
Activity		An activity can be atomic or non-atomic (compound). The types of activities that are a part of a Process Model are: Process, Sub-Process, and Task.
Activity Looping		The attributes of Tasks and Sub-Processes will determine if they are repeated or performed once
Association		An Association is used to associate information with Flow Objects.
Collapsed Sub-Process		The details of the Sub-Process are not visible in the Diagram. A "plus" sign in the lower centre of the shape indicates that the activity is a Sub-Process and has a lower level of detail.
Conditional Flow		Sequence Flow can have condition expressions that are evaluated at runtime to determine whether or not the flow will be used
Data Object		Data Objects are considered Artefacts because they do not have any direct effect on the Sequence Flow or Message Flow of the Process, but they do provide information about what activities require to be performed and/or what they produce
Decision Gate		A decision is made at this gate for a particular direction to take.
End event		End of an event.
Gateway		A Gateway is used to control the divergence and convergence of Sequence Flow
Message Flow		A Message Flow is used to show the flow of messages between two participants that

Element	Notation	Description
		<p>are prepared to send and receive them</p>
<p>Pool</p>		<p>A Pool represents a Participant in a Process.</p>
<p>Sequence Flow</p>		<p>A Sequence Flow is used to show the order that activities will be performed in a Process</p>
<p>Start</p>		<p>Start an event.</p>
<p>Text Annotation (attached with an Association)</p>		<p>Text Annotations are a mechanism for a modeller to provide additional information for the reader of a BPMN Diagram</p>