

## IHI Pre-Implementation Project

Detailed IHI Functional Design (Summary & Business Processes)

Authorised by the Victoria Government, Melbourne.

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# 1. Preface

## 1.1 Document Purpose

The purpose of the document is to define the functional design for the integration of the Individual Health Identifier (IHI) into a typical patient administration system, such that it can be reviewed by stakeholders.

## 1.2 Intended Audience

The intended audience of this document includes:

- Victorian Department of Health Project Sponsor;
- Victorian Department of Health Project Staff;
- Victorian IHI Workshop attendees;
- Victorian health services;
- Other jurisdictional Health Departments;
- Health services in other States and Territories;
- Vendors of health IT systems; and
- NEHTA staff.

## 1.3 References and Related Documents

- NEHTA HI Service Concept of Operations v 1.0 FINAL Nov 2009
- NEHTA Individual Healthcare Identifiers Business Requirements v 1.0 FINAL Nov 2009
- NEHTA HI Security and Access framework v 1.0 FINAL Nov 2009
- NEHTA HI Business Use Case Catalogue v 1.0 FINAL Nov 2009
- NEHTA HI Service Catalogue v 1.0 Final Nov 2009
- NEHTA HI Service Glossary v 1.0 DRAFT Nov 2009
- Vic IHI Integration Business Requirements Specification
- Vic IHI Integration Best Practice Guide (DRAFT)
- Medicare Australia HI Service - Technical Services Catalogue R3A v3.0.2.doc
- Medicare Australia TECH.SIS.HI.01 - SIS - Common Document for SIS v3.0.2.doc
- Medicare Australia TECH.SIS.HI.02- SIS - Common field processing reference document for SIS v3.0.2.doc
- Medicare Australia TECH.SIS.HI.03 - Update Provisional IHI via B2B v3.0.2.doc
- Medicare Australia TECH.SIS.HI.04 - Search for HPI-I via B2B v3.0.2.doc
- Medicare Australia TECH.SIS.HI.05 - Update IHI via B2B v3.0.2.doc
- Medicare Australia TECH.SIS.HI.06 - IHI Inquiry Search via B2B v3.0.2.doc
- Medicare Australia TECH.SIS.HI.07 - Search for HPI-O via B2B v3.0.2.doc
- Medicare Australia TECH.SIS.HI.08 - Resolve Provisional IHI- Merge Records via B2B v3.0.2.doc
- Medicare Australia TECH.SIS.HI.09 - Resolve Provisional IHI- Create Unverified IHI via B2B v3.0.2.doc
- Medicare Australia TECH.SIS.HI.10 - Create Provisional IHI via B2B v3.0.2.doc

- Medicare Australia TECH.SIS.HI.11 - Create Unverified IHI via B2B v3.0.2.doc
- Medicare Australia TECH.SIS.HI.12 - IHI Batch Searching v3.0.2.doc
- Medicare Australia HI Service - IHI Searching Guide v0.3 Draft.doc
- FR.SVI.SPEC.01.232 Notify Duplicate Replica IHI via\_B2B v3.25 (R3b).doc
- Healthcare Identifiers Act 2010

## 2. Introduction

### 2.1 Background

The Victorian IHI Pre-Implementation Project is responsible for identifying and documenting processes that will enable the rollout of IHIs to all Victorians with patient records in HealthSMART health services, and all operational processes that support the use and maintenance of the IHI over time.

Victorian health services operate largely independently, due to the nature of the enabling legislation, with each health service owning and maintaining a dedicated patient register. Victorian HealthSMART health services collectively store over 50 million individual patient records.

A key element of the IHI integration design for the IHI Pre Implementation Project is to understand each “problem” and requirement, so that effective and workable solutions can be defined. The deliverables for the IHI Pre-Implementation Project include a Best Practice Guide for health services capturing and utilising the IHI. For the initial load of IHI data, given the Victorian data volumes, a reasonably high match ratio is essential to overall success.

While the focus of the project is upon HealthSMART health services, this deliverable is intended to be used by all health services, Health departments, and vendors looking to integrate the IHI into their systems and processes.

### 2.2 Aims and Objectives

The aim of the project is to produce artefacts that will support successful implementation of IHI, including a Solution Architecture Design, Business Requirements, Business practice Guides and a sample Business Case. See the Project Brief for more details.

It will achieve these aims through meeting the following objectives:

- Define and incorporate reference solution designs and principles for the integration of Individual Healthcare Identifiers into the HealthSMART solution architecture.
- Defining an architecture, or architectures, that supports other models for patient administration, eg EMPI based.
- Use the reference solution design & principles to identify requirements and validate enhancements to Victorian Health IT environments and applications utilising NEHTA services (both HealthSMART and non-HealthSMART):
- Document requirements, functional specifications and technical specifications for IHI integration with a nominated and agreed PAS product.
- Based on this experience and knowledge gained recommend any proposed changes to the national IHI implementation approach in consultation with other jurisdictions and NEHTA reference groups.
- Leverage the NEHTA architecture and engagement teams capabilities to best use in the Victorian implementation/s, etc.

The aim of this deliverable is to present a simplified view of the functional design for integration of the IHI into health services’ systems and processes. A more detailed deliverable is also available, though this will primarily be of interest to implementers (IT vendors).

The goal of the functional design is to ensure that it caters for all HI Service functions relating to the IHI, and associated exception handling, even though Victorian HealthSMART health services may not make active use of some functions.

## 2.3 Approach to Functional Design

This document comprises Business Processes and Use Cases. Requirements are documented separately, and should be read in conjunction with this document. The documented Business Processes define end-to-end processes, comprising automated steps that are defined further as Use Cases. Most of the Use Cases identified within the Business Processes are defined within this document. If they are not, they are typically PAS-specific use cases that will differ amongst the different PAS applications and not in scope for definition here.

Use Cases are documented according to the UML 2.0 standard, with the Use Case process, with alternate flows, below the description table.

The Functional Design is supported by Technical Design and Architecture deliverables.

The remainder of this document has been automatically generated by the Blueprint Requirements Center 2010 tool.

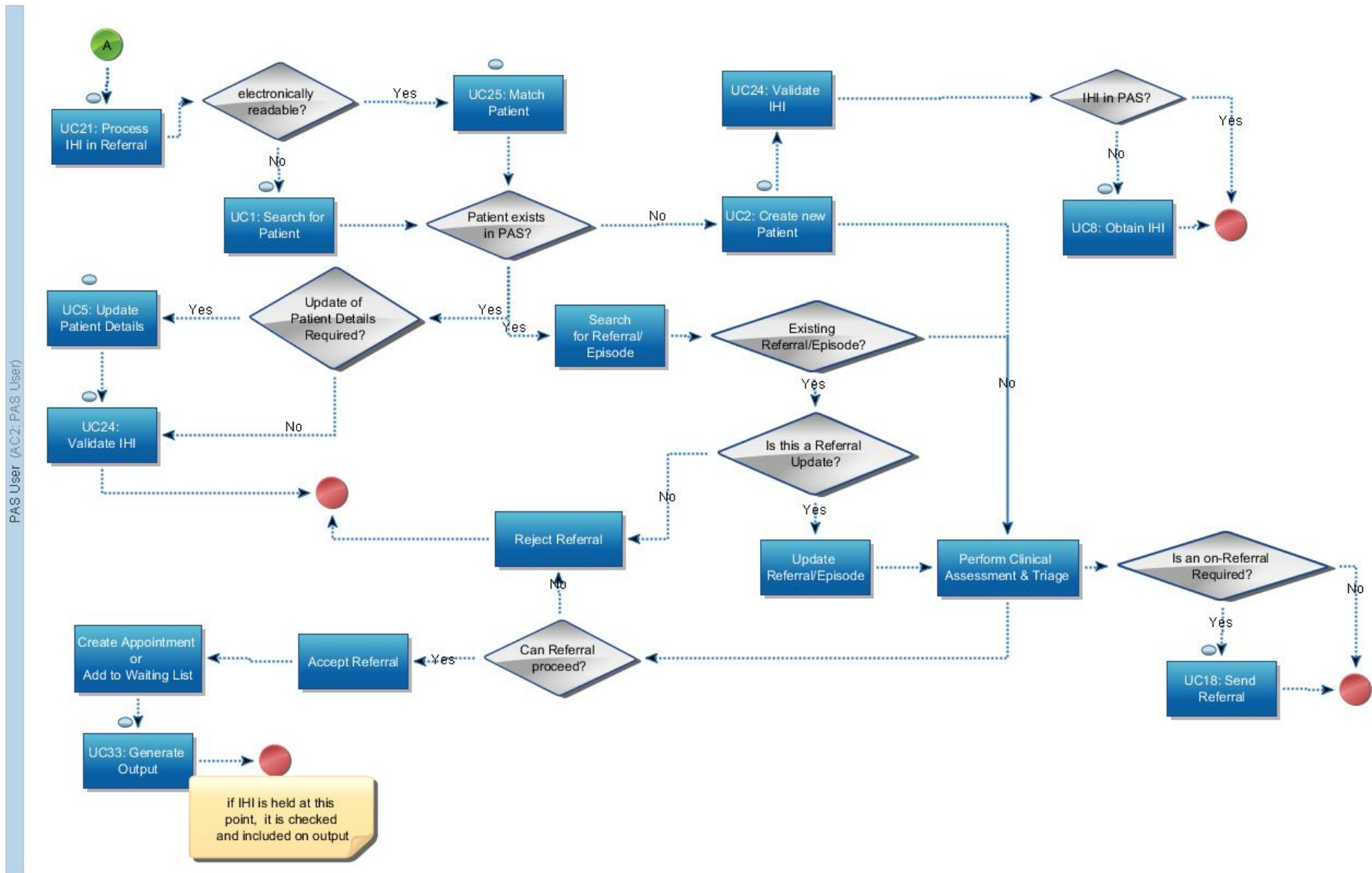
# 3. Business Processes

## 3.1 Business Process List

| ID   | Name                                 | Page |
|------|--------------------------------------|------|
| BP1  | Patient Registration from a Referral | 9    |
| BP6  | Patient Flow                         | 11   |
| BP2  | Unreferred Patient Presentation      | 13   |
| BP4  | Patient Death Registration           | 15   |
| BP7  | Create Referral                      | 16   |
| BP8  | Resolve Duplicate Patient Records    | 17   |
| BP9  | Perform Batch Process                | 18   |
| BP10 | Resolve IHI Exception                | 19   |
| BP11 | Attend Appointment/Treatment         | 20   |



### 3.2 BP1:Patient Registration from a Referral



### 3.2.1 Swimlane: PAS User

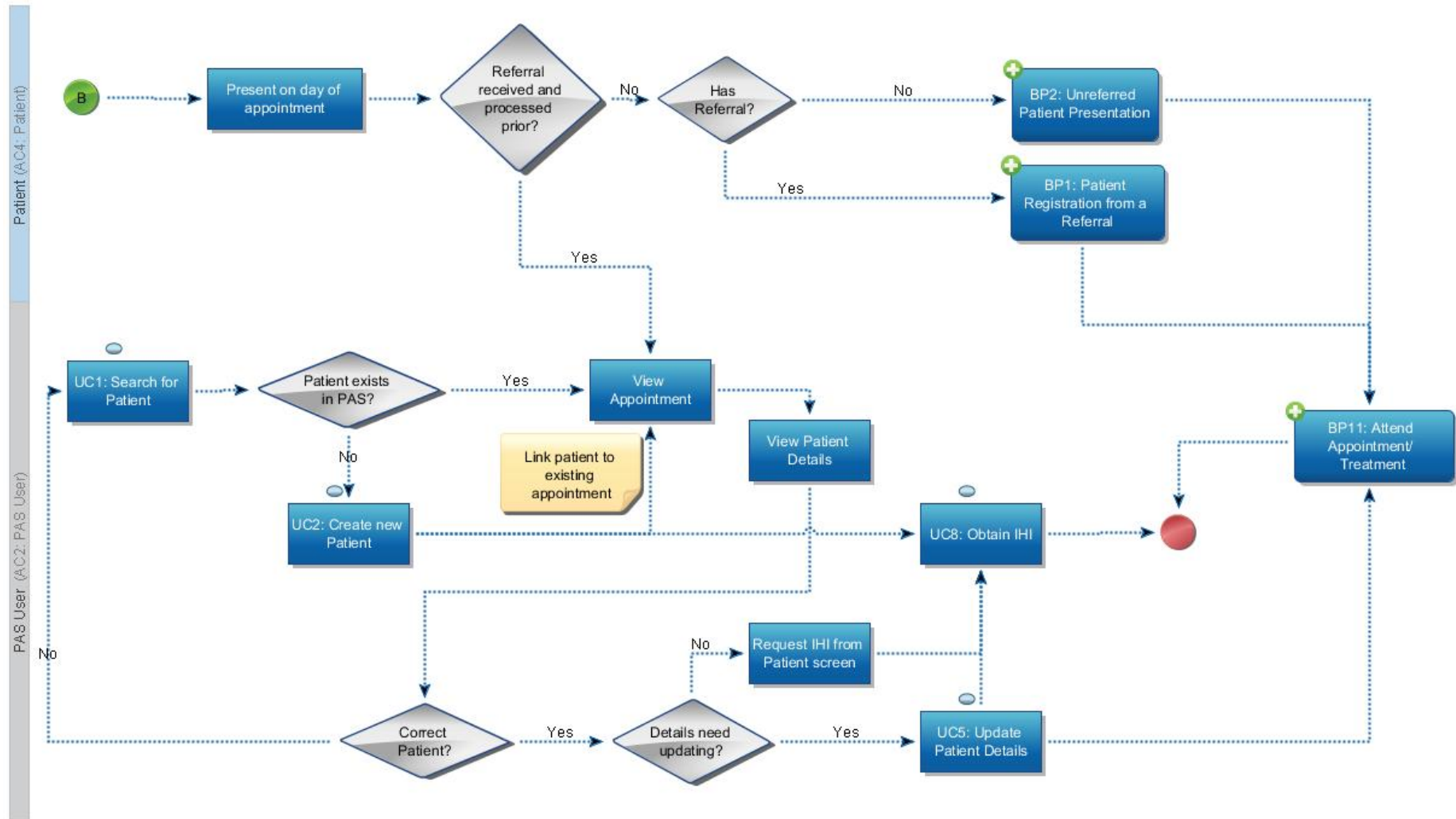
Artifacts Related to this Swimlane:

→ [AC2: PAS User](#)

### 3.2.2 Business Process Elements within this Swimlane:

| Element                                   | Description   | Related Artifacts               |
|---|---|---------------------------------|
| UC1: Search for Patient                   | This is an automated process that attempts to locate a matching patient record for the incoming referral.<br><br>See 8.1.3.3 Proceed the referral – Search Client PMI of P&CMS_e_Referral_Requirements_High_Level_1.1 | → UC1: Search for Patient       |
| UC2: Create new Patient                   | When creating a new patient, a new step must be included to flag whether the patient requires an Unverified IHI.  | → UC2: Create new Patient       |
| Create Appointment or Add to Waiting List | If an appointment can be made, it is created, otherwise the patient is added to the waiting list.   |                                 |
| UC21: Process IHI in Referral             | This Use Case pre-processed the IHI in the referral, to determine whether it is consistent with what is held in the HI Service.   | → UC21: Process IHI in Referral |
| UC8: Obtain IHI                           | This Use Case obtains the IHI from the HI Service.  | → UC8: Obtain IHI               |
| UC24: Validate IHI                        | This Use Case checks the incoming IHI from the referral against what is held in the PAS and determines what to do with discrepancies.   | → UC24: Validate IHI            |
| UC33: Generate Output                     | This Use Cases produces required output for the patient.  | → UC33: Generate Output         |
| UC25: Match Patient                       | This Use Case attempts to perform an automated match to the patient based on data included in the electronically readable referral.   | → UC25: Match Patient           |
| Search for Referral/ Episode              | The user attempts to find a referral or prior episode to match this referral to.  |                                 |
| Update Referral/Episode                   | Updates the Referral or Episode if this is an update.   |                                 |
| Reject Referral                           | Sends a rejection message back to the originator. If the IHI is known, it is included in the message.   |                                 |
| Perform Clinical Assessment & Triage      | The health service performs clinical assessment and triage  |                                 |
| UC18: Send Referral                       | Sends a Referral if an on-referral is required.   | → UC18: Send Referral           |
| UC5: Update Patient Details               | This Use Case updates Patient Details into the PAS.   | → UC5: Update Patient Details   |
| Accept Referral                           | Sends an acceptance message back to the originator. If the IHI is known, it is included in the message.   |                                 |
| UC24: Validate IHI                        | This Use Case validates the IHI received in the referral with what is held in the PAS for this patient.   |                                 |

### 3.3 BP6:Patient Flow



### 3.3.1 Swimlane: Patient

Artifacts Related to this Swimlane:

→ [AC4: Patient](#)

### 3.3.2 Business Process Elements within this Swimlane:

| Element  | Description   | Related Artifacts                                      |
|--|---|--|
| Present on day of appointment                  | The patient presents on the day of their scheduled appointment. |  |
| SP1: BP1: Patient Registration from a Referral | See BP1:Patient Registration from a Referral.                   |  |
| SP2: BP2: Unreferred Patient Presentation      | See BP2:Unreferred Patient Presentation                         | → <a href="#">BP2: Unreferred Patient Presentation</a> |

### 3.3.3 Swimlane: PAS User

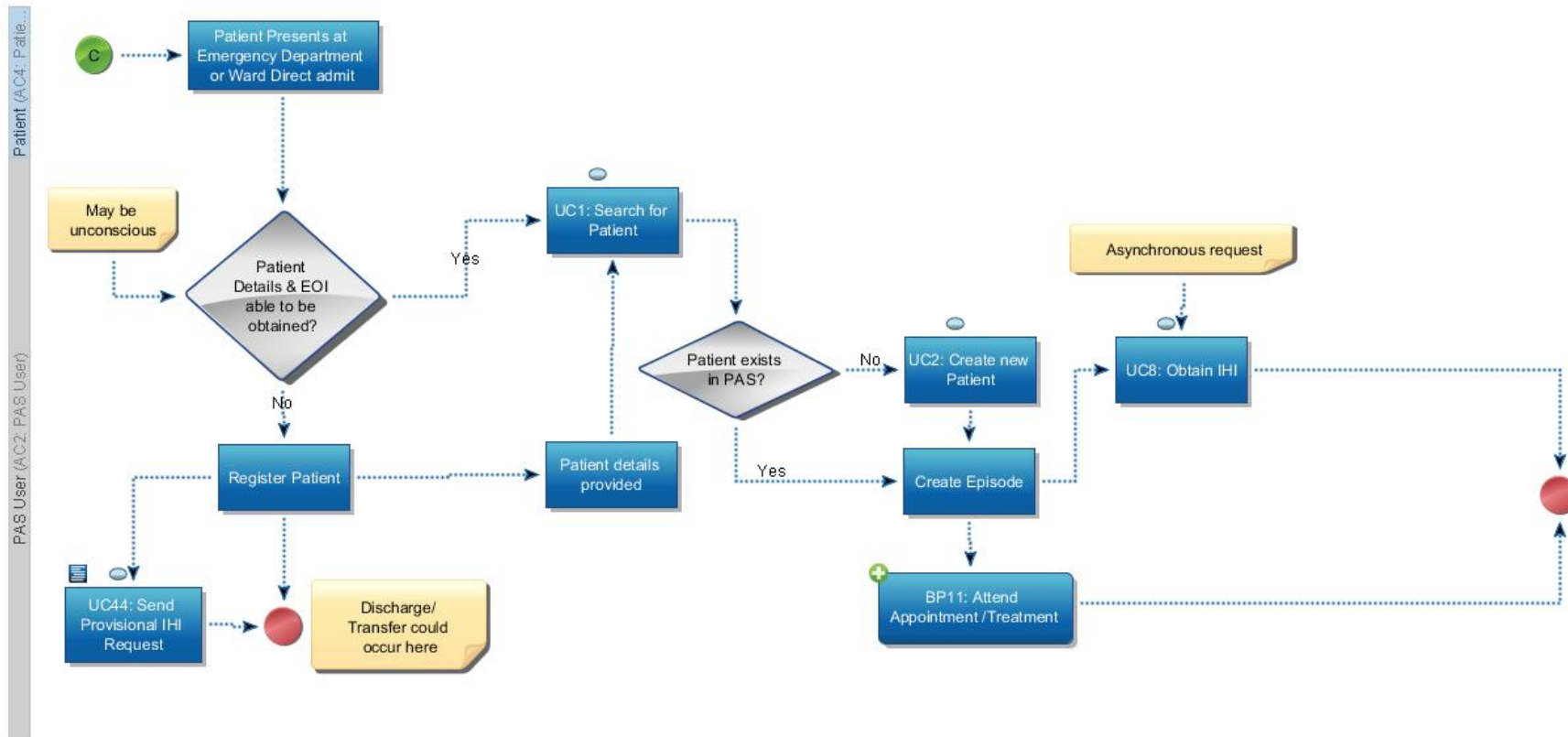
Artifacts Related to this Swimlane:

→ [AC2: PAS User](#)

### 3.3.4 Business Process Elements within this Swimlane:

| Element                                 | Description   | Related Artifacts                                    |
|---|---|--|
| UC2: Create new Patient                 | When creating a new patient, a new step must be included to flag whether the patient has requested an Unverified IHI.   | → UC2: Create new Patient                            |
| View Appointment                        | The user views the appointment for the patient.   |  |
| View Patient Details                    | The user views the patient's details.   |  |
| UC5: Update Patient Details             | This Use Case updates Patient Details into the PAS  | → UC5: Update Patient Details                        |
| UC8: Obtain IHI                         | This Use Case obtains the IHI from the HI Service.  | → UC8: Obtain IHI                                    |
| UC1: Search for Patient                 | This is an automated process that attempts to locate a matching patient record for the incoming referral.<br><br>See 8.1.3.3 Proceed the referral – Search Client PMI of P&CMS_e_Referral_Requirements_High_Level_1.1 | → UC1: Search for Patient                            |
| Request IHI from Patient screen         | There will be a point on the patient screen where a user can request an IHI to be retrieved for the current patient. This will trigger the Obtain IHI Use Case.   |  |
| SP3: BP11: Attend Appointment/Treatment | See BP11:Attend Appointment/Treatment   | → <a href="#">BP11: Attend Appointment/Treatment</a> |

### 3.4 BP2:Unreferred Patient Presentation



### 3.4.1 Artefacts Related to the Business Process

← [DP583: Provisional IHI use](#)

← [BP6: Patient Flow](#)

### 3.4.2 Swimlane: Patient

Artifacts Related to this Swimlane:

→ [AC4: Patient](#)

### 3.4.3 Business Process Elements within this Swimlane:

| Element   | Description   | Related Artifacts |
|---|---|-------------------|
| Patient Presents at Emergency Department or Ward Direct admit | This occurs when a patient is admitted without a prior appointment. This would most likely be when they are transferred directly to a ward or they are admitted through the emergency department. |                   |

### 3.4.4 Swimlane: PAS User

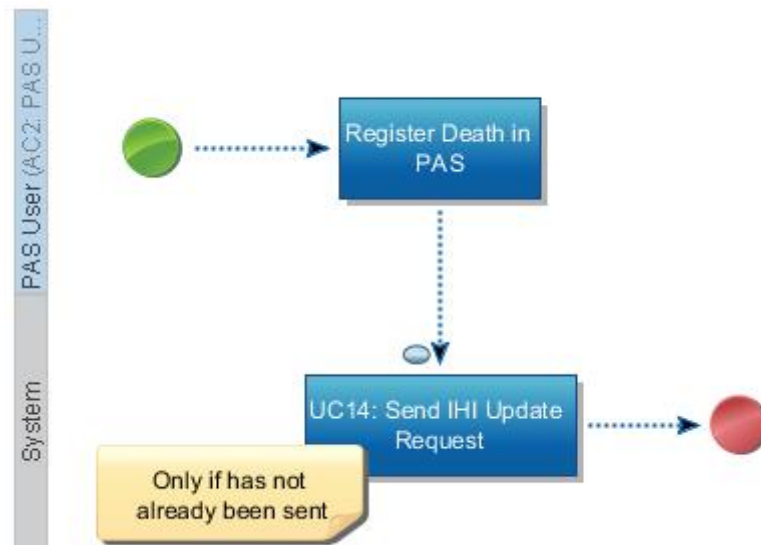
Artifacts Related to this Swimlane:

→ [AC2: PAS User](#)

### 3.4.5 Business Process Elements within this Swimlane:

| Element                                  | Description  | Related Artifacts  |
|--|--|--|
| UC1: Search for Patient                  | This is a manual process of searching for the patient in the PAS system.         | → UC1: Search for Patient  |
| UC2: Create new Patient                  | This Use Case covers the existing process for creating a new patient in the PAS. | → UC2: Create new Patient  |
| Create Episode                           | The user creates an episode as they would normally do.                           |  |
| Register Patient                         | The process of registering a patient for whom minimal personal details are known |  |
| UC44: Send Provisional IHI Request       | This Use Case sends a provisional IHI request to the HI Service                  | ← <a href="#">DP583: Provisional IHI use</a><br>→ UC44: Send Provisional IHI Request |
| UC8: Obtain IHI                          | This Use Case obtains the IHI from the HI Service.                               | → UC8: Obtain IHI  |
| Patient details provided                 | May be a carer or a friend providing details                                     |  |
| SP1: BP11: Attend Appointment /Treatment |  | → <a href="#">BP11: Attend Appointment/Treatment</a>                                 |

### 3.5 BP4:Patient Death Registration



#### 3.5.1 Swimlane: PAS User

Artifacts Related to this Swimlane:

→ [AC2: PAS User](#)

#### 3.5.2 Business Process Elements within this Swimlane:

| Element               | Description  | Related Artifacts |
|-----------------------|--|-------------------|
| Register Death in PAS | The user registers the patient's death details into the PAS. |                   |

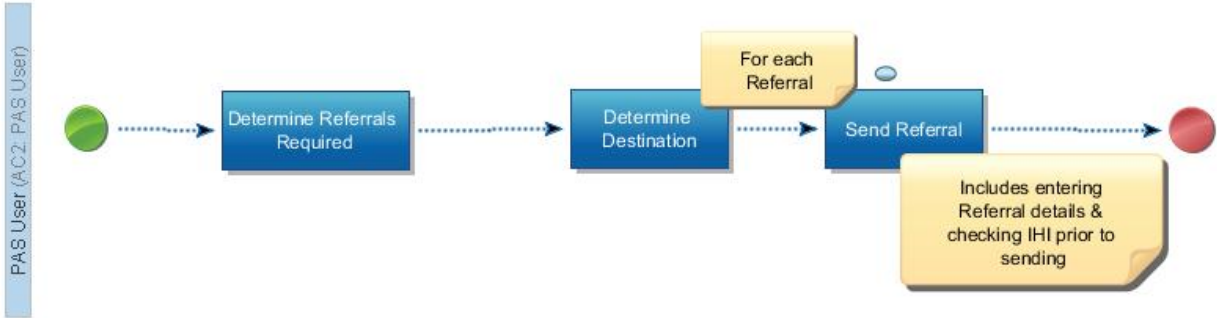
#### 3.5.3 Swimlane: System

No related artefacts.

#### 3.5.4 Business Process Elements within this Swimlane:

| Element                       | Description  | Related Artifacts               |
|-------------------------------|--|---------------------------------|
| UC14: Send IHI Update Request | This Use Case sends updated details for an IHI to the HI Service. In this scenario, it is the death details that are sent. | → UC14: Send IHI Update Request |

### 3.6 BP7:Create Referral



#### 3.6.1 Swimlane: PAS User

Artifacts Related to this Swimlane:

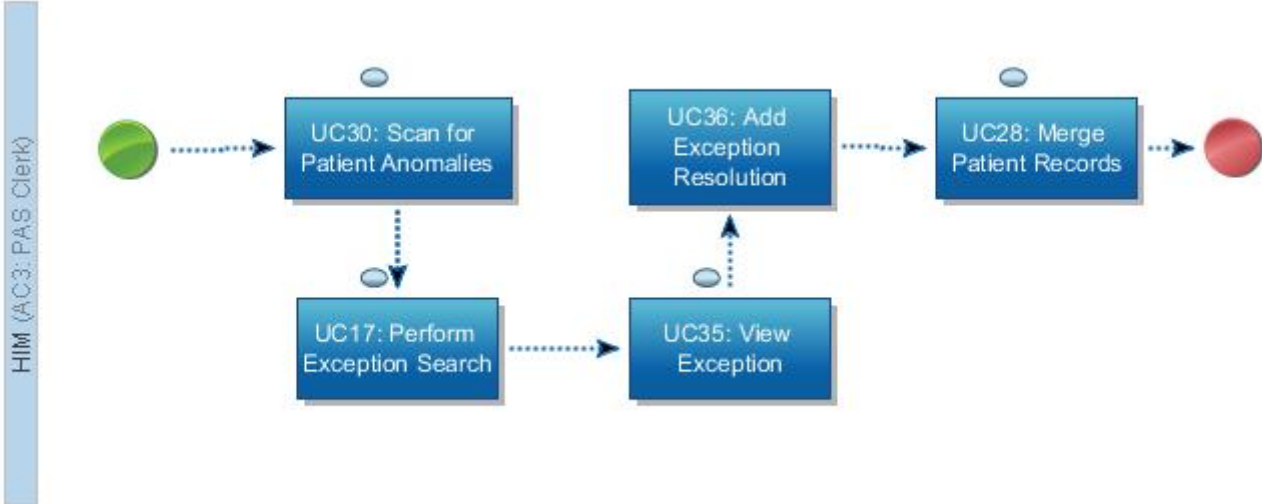
→ [AC2: PAS User](#)

#### 3.6.2 Business Process Elements within this Swimlane:

| Element                      | Description  | Related Artifacts     |
|------------------------------|--|-----------------------|
| Determine Referrals Required | The user determines what referrals are required.   |                       |
| Determine Destination        | The user determines the destination for each referral (Ie. Which Healthcare Provider Individual) |                       |
| Send Referral                | This Use Case allows the user to send the referral.  | → UC18: Send Referral |



### 3.7 BP8:Resolve Duplicate Patient Records



#### 3.7.1 Swimlane: HIM

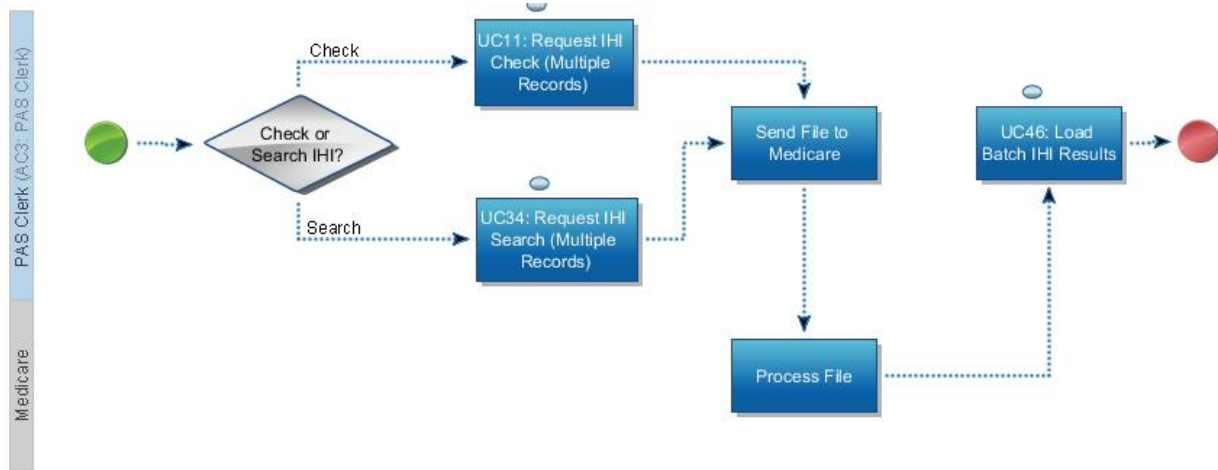
Artifacts Related to this Swimlane:

→ [AC3: PAS Clerk](#)

#### 3.7.2 Business Process Elements within this Swimlane:

| Element                          | Description  | Related Artifacts                  |
|----------------------------------|--|------------------------------------|
| UC28: Merge Patient Records      | This Use Case merges the patient records in the PAS and sends a merge request to the HI Service. | → UC28: Merge Patient Records      |
| UC30: Scan for Patient Anomalies | This Use Case scans the patient records in the PAS for certain situations                        | → UC30: Scan for patient anomalies |
| UC17: Perform Exception Search   | This Use Case allows the user to search for IHI Exceptions based on specific criteria.           | → UC17: Perform Exception Search   |
| UC35: View Exception             | This Use Case allows the user to view the details of a specific IHI Exception.                   | → UC35: View Exception             |
| UC36: Add Exception Resolution   | This Use Case allows the user to add a resolution to a specific IHI Exception.                   | →UC36: Add Exception Resolution    |

### 3.8 BP9:Perform Batch Process



#### 3.8.1 Swimlane: PAS Clerk

Artifacts Related to this Swimlane:

→ [AC3: PAS Clerk](#)

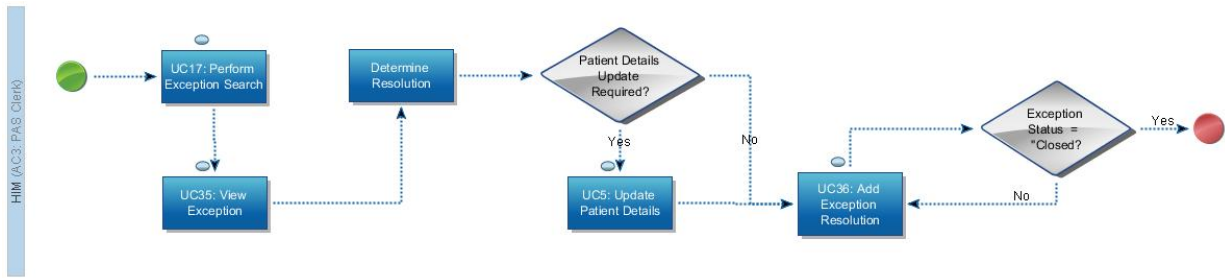
#### 3.8.2 Business Process Elements within this Swimlane:

| Element                                     | Description  | Related Artifacts                             |
|---|--|---|
| UC11: Request IHI Check (Multiple Records)  | This Use Case allows the user to request IHI Checks on multiple patient records.         | → UC11: Request IHI Check (Multiple Records)  |
| UC34: Request IHI Search (Multiple Records) | This Use Case allows the user to Obtain IHIs for multiple patient records.               | → UC34: Request IHI Search (Multiple Records) |
| Send File to Medicare                       | The process of sending the request file to Medicare. This will be done by encrypted USB. |   |
| UC46: Load Batch IHI Results                | This Use Case allows the user to load the result of a prior Bulk request.                | → UC46: Load Batch IHI Results                |

#### 3.8.3 Business Process Elements within this Swimlane:

| Element      | Description                          | Related Artifacts |
|--------------|--------------------------------------|-------------------|
| Process File | Medicare processes the request file. |                   |

### 3.9 BP10:Resolve IHI Exception



#### 3.9.1 Swimlane: HIM

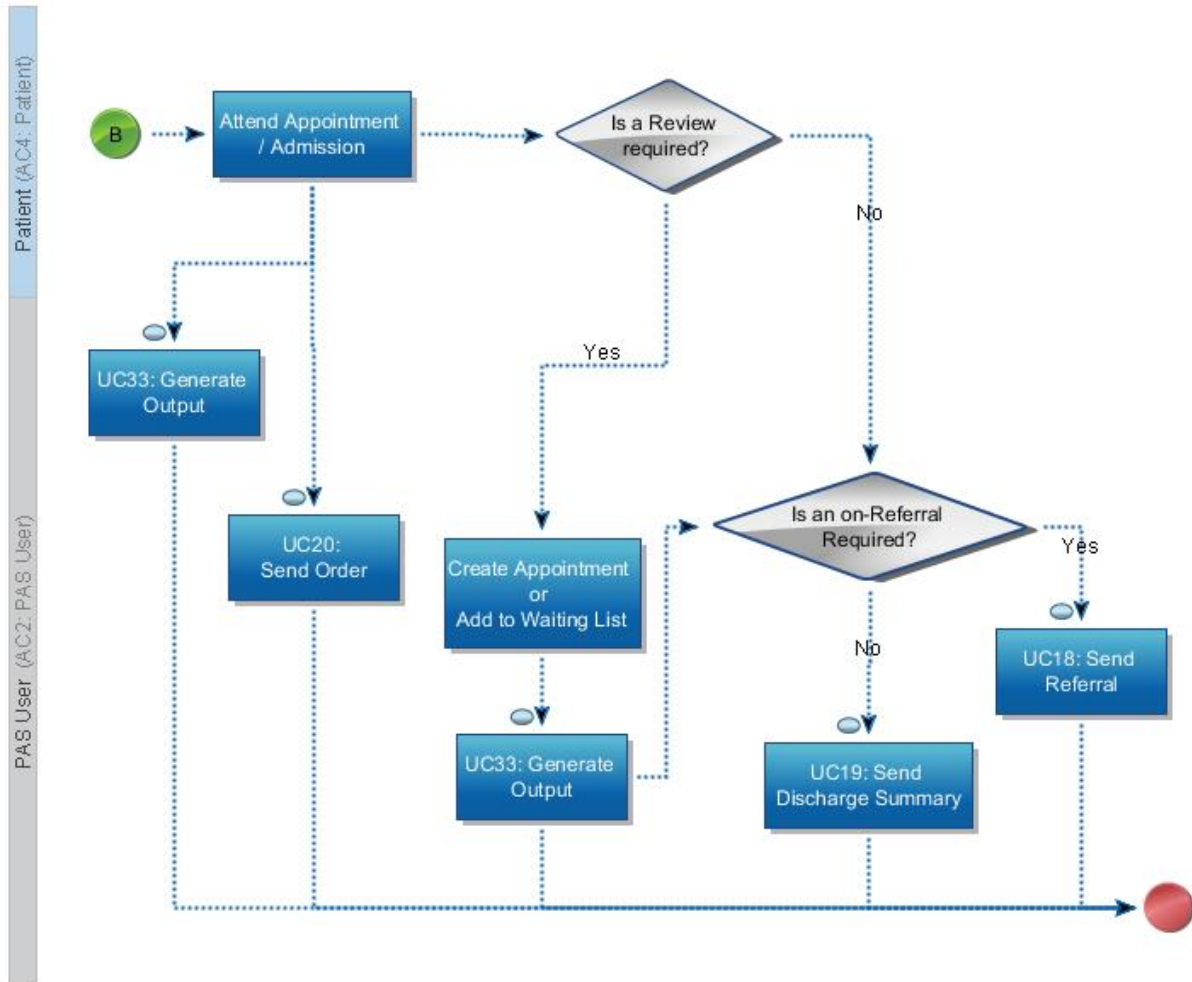
Artifacts Related to this Swimlane:

→ [AC3: PAS Clerk](#)

#### 3.9.2 Business Process Elements within this Swimlane:

| Element                        | Description  | Related Artifacts                |
|--------------------------------|--|----------------------------------|
| UC17: Perform Exception Search | This Use Case allows the user to search for IHI Exceptions based on specific criteria. | → UC17: Perform Exception Search |
| UC35: View Exception           | This Use Case allows the user to view the details of a specific IHI Exception.         | → UC35: View Exception           |
| Determine Resolution           | The user determines what resolution is required.                                       |                                  |
| UC5: Update Patient Details    | This Use Case updates Patient Details into the PAS.                                    | → UC5: Update Patient Details    |
| UC36: Add Exception Resolution | This Use Case allows the user to add a resolution to a specific IHI Exception.         | → UC36: Add Exception Resolution |

### 3.10 BP11:Attend Appointment/Treatment



#### 3.10.1 Artefacts Related to the Business Process

- ← [BP6: Patient Flow](#)
- ← [BP2: Unreferred Patient Presentation](#)

#### 3.10.2 Swimlane: Patient

Artefacts Related to this Swimlane:

- [AC4: Patient](#)

#### 3.10.3 Business Process Elements within this Swimlane:

| Element                        | Description  | Related Artifacts |
|--------------------------------|--|-------------------|
| Attend Appointment / Admission | The patient attends to appointment or is admitted for treatment. |                   |

#### 3.10.4 Swimlane: PAS User

Artefacts Related to this Swimlane:

- [AC2: PAS User](#)

### 3.10.5 Business Process Elements within this Swimlane:

| Element                                   | Description   | Related Artifacts              |
|---|---|--------------------------------|
| Create Appointment or Add to Waiting List | If an appointment can be made, it is created, otherwise the patient is added to the waiting list. |                                |
| UC19: Send Discharge Summary              | This Use Case sends the discharge summary to interested parties (typically the referrer)          | → UC19: Send Discharge Summary |
| UC33: Generate Output                     | This Use Cases produces required output for the patient.  | → UC33: Generate Output        |
| UC18: Send Referral                       | This Use Case allows the user to send the referral.   | → UC18: Send Referral          |
| UC20: Send Order                          | This Use Case sends various types of Orders to their recipients.                                  | → UC20: Send Order             |
| UC33: Generate Output                     | This Use Cases produces required output for the patient.  | → UC33: Generate Output        |

## 4. Use Cases

### 4.1 Patient Use Case List

| ID   | Name                   |
|------|------------------------|
| UC1  | Search for Patient     |
| UC25 | Match Patient          |
| UC2  | Create new Patient     |
| UC5  | Update Patient Details |
| UC38 | Display Alert(s)       |
| UC33 | Generate Output        |

### 4.2 IHI Processing Use Case List

| ID   | Name                                  |
|------|---------------------------------------|
| UC8  | Obtain IHI                            |
| UC7  | Search for IHI                        |
| UC10 | Update IHI                            |
| UC9  | Check IHI                             |
| UC12 | Generate IHI Exception                |
| UC11 | Request IHI Check (Multiple Records)  |
| UC34 | Request IHI Search (Multiple Records) |
| UC24 | Validate IHI                          |
| UC46 | Load Batch IHI Results                |
| UC51 | Process Patient Details Update        |
| UC54 | Refresh IHI                           |
| UC55 | Reset Merge                           |

### 4.3 HI Service Use Case List

| ID   | Name  |
|------|---|
| UC15 | Send IHI Request                                  |
| UC16 | Send Unverified IHI Request                       |
| UC14 | Send IHI Update Request                           |
| UC43 | Send Merge Request                                |
| UC44 | Send Provisional IHI Request                      |
| UC45 | Send Provisional IHI Update Request               |
| UC49 | Send Provisional to Unverified Resolution Request |
| UC48 | Send Medicare Service Request                     |
| UC56 | Send Duplicate or Replica IHI Notification        |

### 4.4 Care Co-ordination Use Case List

| ID   | Name                       |
|------|----------------------------|
| UC18 | Send Referral              |
| UC19 | Send Discharge Summary     |
| UC20 | Send Order                 |
| UC21 | Process IHI in Referral    |
| UC22 | Send Referral Update       |
| UC23 | Send Referral Cancellation |

### 4.5 HIMs Use Case List

| ID   | Name                     |
|------|--------------------------|
| UC17 | Perform Exception Search |
| UC35 | View Exception           |

| ID   | Name                       |
|------|----------------------------|
| UC36 | Add Exception Resolution   |
| UC28 | Merge Patient Records      |
| UC40 | Perform Merge Analysis     |
| UC29 | Unmerge Patient Records    |
| UC30 | Scan for patient anomalies |
| UC37 | Manage Exception Type      |
| UC50 | Close Exception            |
| UC31 | View Patient IHI Report    |
| UC52 | View IHI Summary Report    |

## 4.6 Actor(s):

The following table identifies the relevant Actors for the System. System implementers should consider the mapping between Actors and Use Cases as a guideline for role based access at an agency level.

| ID  | Name                 | Aliases   |
|-----|----------------------|---|
| AC2 | PAS User             | PAS Clerk, Clinician, Nurse, Ancillary Workers, Interpreters, ED User, Intake Manager |
| AC3 | PAS Clerk            | Registration Clerk, Admissions Clerk, Ward Clerk, HIM                                 |
| AC4 | Patient              | Client  |
| AC5 | Clinical System User | Administrative User, Clinician  |
| AC6 | The PAS System       | The PAS System  |
| AC7 | PAS Administrator    |   |
| AC8 | System Administrator |   |

# 5. Messages

## 5.1 Alerts

Alerts are created on individual patient records to alert the Actor to a certain condition that applies to that record. See the Best Practice Guide for procedures for each alert.

| ID    | Name                        | Message   |
|-------|-----------------------------|---|
| AT574 | Unstable IHI                | The IHI is currently undergoing exception processing. |
| AT575 | Deceased                    | The patient may be deceased.                          |
| AT576 | Potential Duplicate         | Duplicate record may exist: [Other URN].              |
| AT616 | Ineligible for Verified IHI | Ineligible for Verified IHI as at [date].             |

## 5.2 Error Messages

The errors listed below are raised by the System.

| ID           | Name                                   | Message  |
|--------------|--|--|
| EM145 / E100 | HI Service Timeout                     | The HI Service is offline.   |
| EM135 / E101 | Insufficient Information               | The patient record does not have sufficient information held on it to perform the IHI request.   |
| EM138 / E102 | Duplicate PAS Criteria                 | The PAS system has duplicate records based on the IHI search criteria.   |
| EM141 / E103 | Duplicate IHIs within PAS              | The IHI that was returned already exists on another record within the PAS.   |
| EM420 / E105 | Referral IHI and returned IHI mismatch | There was an IHI in the Referral and not in the PAS. An IHI Search was conducted. The returned IHI does not match the IHI in the referral. |
| EM421 / E106 | Non-Active Patient                     | Validate of IHI was attempted on a non-Active patient record.  |
| EM424 / E107 | Different People                       | The two compared top-level numbers do not match and may belong to two different people.  |

The errors listed below are raised by the HI Service.

| ID            | Name                 | Message   |
|---------------|----------------------|---|
| EM370 / E104  | No Match found       | No IHI match was found.   |
| EM603 / 01500 | No Match             | No match has been found.  |
| EM302 / 00013 | Family Name          | The family name contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens. |
| EM303 / 00018 | Birth Year           | The birth year must not be less than 1800, i.e. it must be equal to or greater than 1800.   |
| EM304 / 00019 | Future DoB           | The date of birth must not be in the future.  |
| EM305 / 00081 | Locality             | The locality contains invalid characters. Only alpha characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.                |
| EM306 / 00083 | Postcode             | The postcode contains invalid characters. Only numeric characters are acceptable. The postcode must contain four numeric characters for an Australian address.                                      |
| EM307 / 00098 | Locality Combination | The locality, postcode and state is not a valid combination.  |
| EM308 /       | Medicare check digit | Medicare card fails check digit routine.  |



| ID            | Name                                      | Message  |
|---------------|---|--|
| 00262         |   |  |
| EM322 / 00086 | Mobile Number                             | The mobile number contains invalid characters. Only alpha and numeric characters are acceptable.   |
| EM324 / 00088 | @   | You must key the @ symbol as part of the email address.  |
| EM325 / 00089 | email                                     | The email address must have alpha/numeric characters immediately before or after the @ symbol. Spaces must not immediately precede or follow the @ symbol.   |
| EM326 / 00267 | Future date of death                      | The date of death must not be in the future.   |
| EM327 / 00275 | Date of Death / Date of Birth             | The date of death must not be earlier than the date of birth.  |
| EM328 / 00370 | Date of Death/ Death notification Source  | You must key a date of death when a death notification source has been selected.   |
| EM329 / 00371 | Death Notification Source / Date of Death | You must select a death notification source when a date of death has been keyed.   |
| EM310 / 01474 | Unknown error                             | Please contact Help Desk to resolve the unknown error.   |
| EM311 / 01514 | IHI check digit                           | IHI Number fails the check digit routine.  |
| EM142 / 01527 | Multiple Matches Found                    | Multiple matches found. Please refine the search criteria.   |
| EM312 / 01528 | Multiple search criteria                  | Multiple search criteria keyed. Please refine the search criteria.   |
| EM313 / 01544 | Invalid DVA                               | The DVA file number entered is invalid.  |
| EM314 / 01581 | Unit Number                               | The Unit Number contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.            |
| EM315 / 01582 | Address Site Name                         | The Address Site Name contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.      |
| EM316 / 01583 | Level Number                              | The Level Number contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.           |
| EM317 / 01584 | Street Number                             | The Street Number contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.          |
| EM318 / 01585 | Lot Number                                | The Lot Number contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.             |
| EM319 / 01586 | Street Name                               | The Street Name contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.            |
| EM506 / 01587 | Suburb                                    | The Suburb of the Address contains invalid characters. Only alpha characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.              |
| EM320 / 01588 | Postal Delivery Number                    | The Postal Delivery Number contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens. |
| EM143 / 01613 | Expired Record Matched                    | This IHI record has an 'Expired' IHI status and can not be retrieved via this channel.   |
| EM214 /       | Retired Record Matched                    | This IHI record has a 'Retired' IHI status and can not be  |

| ID            | Name                                    | Message  |
|---------------|---|--|
| 01614         |   | retrieved via this channel.  |
| EM321 / 01675 | IHI Number                              | IHI Number must be 16 digits.  |
| EM330 / 01400 | Date of Death/ Accuracy Ind             | No date of death has been recorded and a selection has been made for Date of Death Accuracy Indicator.   |
| EM331 / 01401 | Accuracy Ind/ Date of Death             | The date of death accuracy indicator is required when a date of death is entered.  |
| EM332 / 01418 | Given Name                              | The given name contains invalid characters. Only alpha and numeric characters, apostrophes and hyphens are acceptable. Spaces must not appear immediately before or after apostrophes and hyphens.                                   |
| EM337 / 01422 | Birth Order                             | Birth Order must be selected if Birth Plurality is selected.   |
| EM338 / 01429 | Telephone Number invalid                | Telephone number contains invalid characters. Only numeric characters are acceptable.  |
| EM339 / 01430 | Telephone Number too short              | Telephone number contains less than 8 digits.  |
| EM340 / 01431 | Mobile Number                           | Mobile Number contains less than 10 digits.  |
| EM341 / 01458 | Existing Unverified IHI record exists   | Existing Unverified IHI record exists with these details. Change existing details or enter an address for this record.   |
| EM349 / 01465 | Address Purpose                         | Address purpose can only be set to Residential for International Addresses.  |
| EM351 / 01506 | Postal Delivery Type Code               | If Postal Delivery Type Code is Care PO (Care-of-Post Office) or Care PO (Poste Restante), a Postal Delivery Number is not required and vice versa.  |
| EM352 / 01577 | . after @                               | You must key a "." after the @ symbol as part of the email address.  |
| EM353 / 01578 | no spaces                               | No Spaces are allowed as part of a valid email address.  |
| EM354 / 01592 | Fax number characters                   | Fax number contains invalid characters. Only numeric characters are acceptable.  |
| EM355 / 01593 | Fax number min                          | Fax number contains less than 8 digits.  |
| EM356 / 01668 | Street Number/Lot Number                | Either street number or lot number required for an Australian address.   |
| EM357 / 01669 | Not both Street Number & Lot Number     | Only one of lot number or street number required for an Australian address not both.   |
| EM358 / 01689 | Country is Australia                    | If the country is Australia, you cannot enter International Address Line, International State/Province, and International Postcode.  |
| EM359 / 01691 | Birth Plurality                         | Birth Plurality must be entered if Birth Order has been entered  |
| EM360 / 01692 | One Address Type for Unverified         | Only one type (Mailing/Residential or international) of address allowed in the create unverified IHI process.  |
| EM509 / 01620 | Verified Update                         | This is an invalid amendment request via this channel for a verified IHI record. Only date of death, date or death accuracy indicator and source of death notification can be updated for a verified IHI record via the B2B channel. |
| EM595 / 01427 | Date of Death exists                    | The Date of Death from Births, Deaths and Marriages already exists for the Record.   |
| EM596 / 01428 | Date of Death Accuracy Indicator exists | The Date of Death Accuracy Indicator from Births, Deaths and Marriages already exists for the Record.  |
| EM512 / 01690 | Source of Death already held            | The Source of Death Notification from Births, Deaths and Marriages already exists for the IHI Record.  |
| EM592 / 01457 | Expired/Retired Update disallowed       | IHI records with an Expired or Retired Status cannot be updated via this channel.  |
| EM604 / 01601 | Not Provisional                         | The Provisional Record Status does not match the Record Status found.  |
| EM605 / 01687 | No Status Match                         | The Unverified/Verified Record Status does not match the Record Status found.  |

| ID            | Name                   | Message   |
|---------------|------------------------|---|
| EM606 / 01688 | Not Active or Deceased | The record to be processed does not have active or deceased Status.                         |
| EM632 / 01610 | Retired Not Allowed    | This can not be flagged as a potential duplicate or replica as it has a "retired" status.   |
| EM633 / 01502 | Already Duplicate      | The following record(s) contain a potential duplicate flag: < Number>                       |
| EM634 / 01507 | Already Replica        | The following record(s) contain a potential replica flag: < Number>                         |
| EM637 / 01433 | Invalid IHI            | The Individual Healthcare Identifier qualifier <individualHealthcareIdentifier> is invalid. |

## 5.3 Information Messages

| ID            | Name  | Message   |
|---------------|---|---|
| IM140 / 01439 | No Match Found  | No Healthcare Individual records have been found  |
| IM144 / 01611 | Matched record flagged as duplicate                             | This IHI record is a duplicate IHI record that has been resolved to IHI number [IHI Number].    |
| IM215 / 01612 | Matched record flagged as provisional resolved to a primary IHI | This IHI record is a provisional IHI record that has been resolved to IHI number [IHI Number].  |
| IM219 / 01531 | Matched record has a date of death                              | The HI Service matched a record that has a date of death.                                       |
| IM323 / 00070 | No Postal Match   | The address details cannot be matched to an address in the Postal Address File.                 |
| IM345 / 01466 | Successful Provisional IHI Creation                             | The Provisional IHI has been successfully created.  |
| IM346 / 01603 | Successful IHI Creation   | The IHI record has been successfully created.   |
| IM591 / 01402 | Successful IHI Update   | The Record has been successfully updated.   |
| IM601 / 01443 | Successful Provisional IHI merged                               | The provisional record has been successfully resolved.  |
| IM609 / 01605 | Successful resolve to Unverified IHI                            | The Provisional IHI record has been successfully resolved and IHI status amended to Unverified. |
| IM348 / 01463 | DoB >100  | The date of birth is 100 years or more in the past.   |
| IM347 / 01464 | DoB > 80  | The date of birth is 80 years or more in the past.  |
| IM635 / 01449 | Successful Flag - Duplicates                                    | The records selected have been successfully flagged as potential duplicates.                    |
| IM636 / 01496 | Successful Flag - Replicas                                      | The records selected have been successfully flagged as potential replicas.                      |

## 6. Glossary

| Term                | Description  |
|---------------------|--|
| After Presentation  | A term used to describe when the patient is present in the health service, ie on or after presentation. This enables health staff to validate Medicare and demographic details directly with the patient.  |
| AS                  | Australian Standard  |
| B2B                 | Business to business, a term used to describe the web service based functions implemented in the HI Service.   |
| BDM                 | Birth, Deaths & Marriages  |
| Before Presentation | A term to describe the period prior to a patient presenting at the health service, in which a referral may be received, an entry created on a waiting list, and an appointment made, with the appropriate notifications. The patient is not readily available to confirm their Medicare number or demographic details, though this can be done via telephone, email, letter, etc.  |
| CCA                 | A NEHTA group responsible for Compliance, Conformance and Accreditation.   |
| CMS                 | Community Management System  |
| DOB                 | Date of Birth  |
| DoH                 | Victorian Department of Health   |
| DVA                 | Commonwealth Department of Veterans' Affairs   |
| ED                  | Emergency Department   |
| EOI                 | Evidence of Identity   |
| Episode             | A single admission to a health service for a particular condition or conditions, or<br>A period of care for a particular condition, often covered by a single referral (supporting multiple admissions or attendances).  |
| FoI                 | Freedom of Information   |
| HI                  | Healthcare Identifier Service  |
| HIM                 | Health Information Manager, a specialist in the management of health information, including patient records.   |
| HPI-I               | Healthcare Provider Identifier – Individual. A unique number to be assigned to every person involved in healthcare service delivery.   |
| HPI-O               | Healthcare Provider Identifier – Organisation, a unique number that will be assigned to all organisations involved in healthcare service delivery  |
| HPOS                | Health Professional Online Services, a portal provided by Medicare Australia.  |
| HSD                 | The Victorian Human Services Directory   |
| HealthSMART         | The Victorian Department of Health HealthSMART program is responsible for managing processes to select, configure and implement applications to reflect state wide requirements (state wide footprint) into participating healthcare agencies. Additionally, the HealthSMART program is responsible for establishing and managing the shared ICT infrastructure that is required to support these applications and agencies use of them. |
| ICT                 | Information and Communications Technology  |
| ID                  | Identity or identifier   |
| IEC                 | International Electrotechnical Commission, an international standards body which focuses on electrical, electronic and related technologies.   |

| Term              | Description  |
|-------------------|--|
| IHI               | The Individual Healthcare Identifier, which Medicare Australia allocated to every active Medicare enrollee, on the 1 <sup>st</sup> July 2010.  |
| IHI Record Status | There are three record statuses of IHIs: <ul style="list-style-type: none"> <li>• Verified</li> <li>• Unverified</li> <li>• Provisional</li> </ul>   |
| IHI Status        | There are five IHI Statuses of IHIs: <ul style="list-style-type: none"> <li>• Active</li> <li>• Deceased</li> <li>• Retired</li> <li>• Expired</li> <li>• Resolved</li> </ul>  |
| IP                | Inpatient  |
| IRN               | Individual Reference Number, used on the Medicare card to identify each individual whose name appears on the card.   |
| ISO               | International Standards Organisation   |
| MSO               | Medicare Service Operator  |
| NASH              | The National Authentication Service for Health (NASH) project being delivered through NEHTA will deliver the first nationwide security service to enable healthcare organisations and individuals to exchange e-health information.  |
| NEHTA             | National EHealth Transition Authority  |
| NOK               | Next of Kin  |
| OP                | Outpatient   |
| OPD               | Outpatient Department  |
| P&CMS             | Patient and Client Management System, also abbreviated to PCMS.  |
| PAS               | Patient Administration System – a system used for the recording of patient and provider information to support management and coordination of service provision. Within HealthSMART this functionality is provided by either a consolidated Patient and Client Management System (P&CMS) through the iSOFT iPM application or Community Management System through the Trak application for stand-alone metropolitan community health centres.  |
| PKI               | Public Key Infrastructure  |
| Referral          | A referral is defined within the Australian standard as “the communication with the intention of initiating patient/client care transfer, from the provider making the referral (the originator) to the provider expected to act on the referral (the destination).”<br><br>In the context of this document a referral is used as a representative health service request or report, and the reader should consider Orders (pathology, diagnostic imaging, etc), discharge summaries, etc. |
| SLA               | Service Level Agreement, a contractual agreement that defines the required levels of services required from a vendor/supplier. For example, a common SLA may define that the system be available 98% of the time, and 100% of the time during working hours.   |
| TDS               | Trusted Data Source, which refers to Medicare and the Commonwealth Department of Veterans’ Affairs in the initial allocation of IHIs within the HI Service.  |

| Term | Description   |
|------|---|
|      | In the context of the IHI Pre-Implementation project, an organisation participating in e-health messaging, who has met the compliance/accreditation criteria, is also referred to as a trusted data source. |
| UC   | Use case, part of the UML standard used to document tasks or business process steps.  |
| UML  | Unified Modelling Language. An international standard for documenting the design of an application.   |
| URN  | Unit Record Number  |

# 7. Appendix A – Related Requirements

## 7.1 PAS Requirements

| ID    | Requirement                                | Description  |
|-------|--|--|
| PR437 | Search on IHI Status and IHI Record Status | All IHIs within the PAS must be able to be searched by IHI Status and IHI Record Status and include these fields in the search results.  |
| PR588 | IHI Report                                 | The IHI report must include IHI in its search criteria, and be able to match on IHIs in the patient record as well as IHIs in the Primary IHI and Secondary IHI of an IHI Exception.             |
| PR438 | IHI Display Requirements                   | Whenever an IHI is displayed the following fields must accompany it: <ul style="list-style-type: none"><li>• IHI Status</li><li>• IHI Record Status</li><li>• Last Update/Checked Date</li></ul> |
| PR617 | Trigger Obtain                             | The System must provide the ability to initiate the Obtain IHI Use Case from a Patient screen.   |
| PR627 | Trigger Unverified                         | The System must provide the ability to initiate the Send Unverified IHI Request Use Case from a Patient screen   |