

IHI Pre-Implementation Project

IHI Processing Detailed IHI Functional Design

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 Functional Design
- Vic IHI Integration Business Requirements Specification
- 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. Use Cases

3.1 Use Case List

ID	Name	Page
UC8	Obtain IHI	9
UC7	Search for IHI	12
UC10	Update IHI	19
UC9	Check IHI	22
UC12	Generate IHI Exception	33
UC11	Request IHI Check (Multiple Records)	35
UC34	Request IHI Search (Multiple Records)	41
UC24	Validate IHI	45
UC46	Load Batch IHI Results	50
UC51	Process Patient Details Update	53
UC54	Refresh IHI	58
UC55	Reset Merge	60

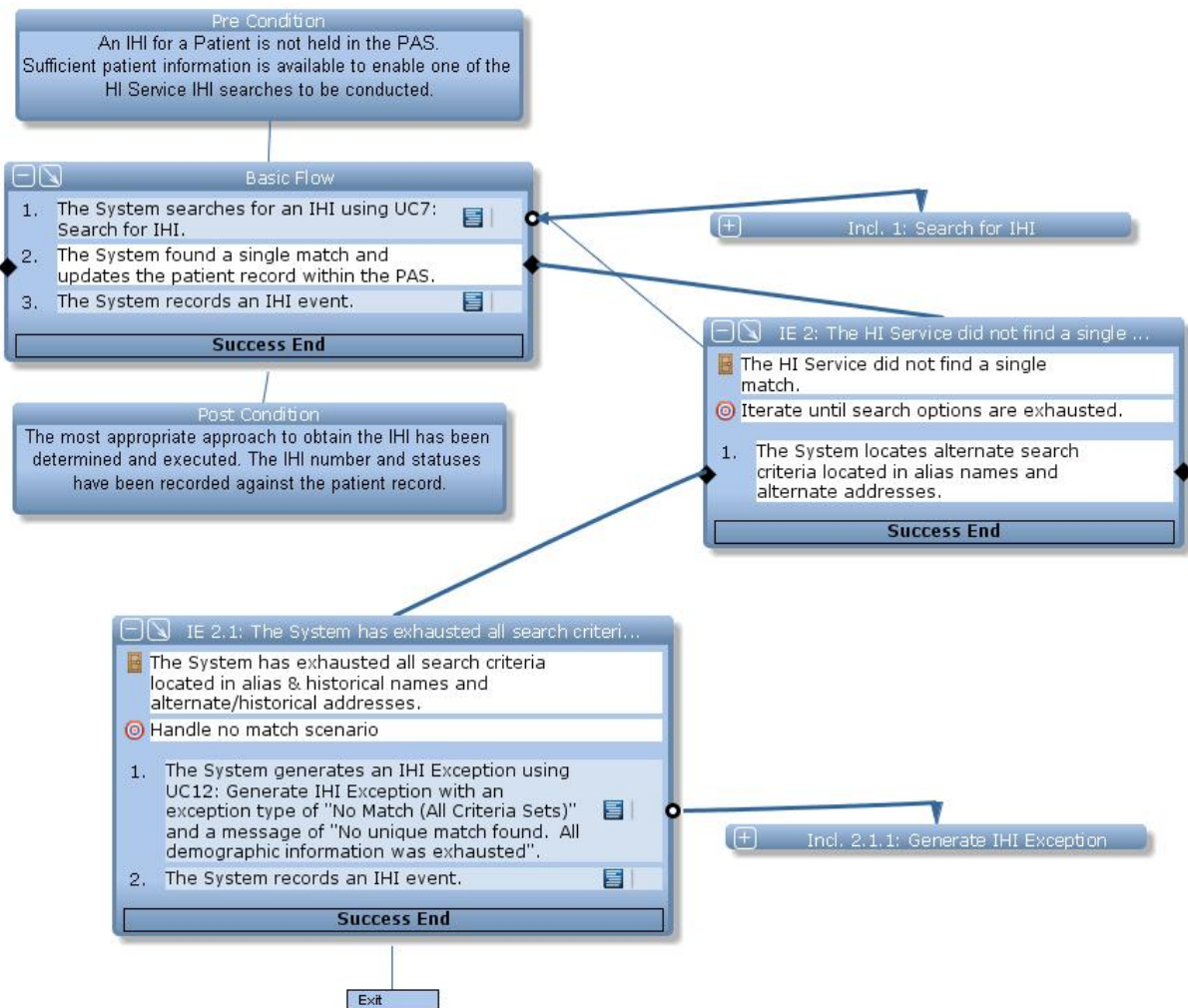
3.2 Actor(s):

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	

3.3 UC8 : Obtain IHI

Actors	The PAS System
Overview	This use case acts as the coordinator for IHI searches to be sent to the HI Service, and will determine the optimum search given the data available, and manage the iteration through items such as aliases and alternate addresses. This will be a commonly used function across all health services, and is also applicable to batch based IHI search requests.
Pre Condition	An IHI for a Patient is not held in the PAS. Sufficient patient information is available to enable one of the HI Service IHI searches to be conducted.
Post Condition	The most appropriate approach to obtain the IHI has been determined and executed. The IHI number and statuses have been recorded against the patient record.
Circumstances of Use	This use case will apply when: <ol style="list-style-type: none"> 1. An IHI is not already allocated to an existing patient record in the PAS; 2. A new patient record is created, either from a referral or presentation / admission; 3. Data used for IHI Searching or checking is altered within the patient record (name, DOB, gender, Medicare number, DVA file number, etc), resulting in a new search being required 4. A User has triggered this Use Case by requesting it on the Patient screen.
Included In (Other Use Cases)	UC51: Process Patient Details Update UC54: Refresh IHI UC18: Send Referral UC19: Send Discharge Summary UC20: Send Order
Business Processes	BP1: Patient Registration from a Referral BP6: Patient Flow BP2: Unreferred Patient Presentation



BASIC FLOW:

#	Description	Requirement/ Include
1	The System searches for an IHI using UC7: Search for IHI.	RU661 UC7: Search for IHI
2	The System found a single match and updates the patient record within the PAS.	

ALTERNATE FLOW(S):

Condition	Link	Return Step
The HI Service did not find a single match.	IE 2	1
3	The System records an IHI event.	AL674


Internal Extension (Alternate Flow) IE 2

Condition: The HI Service did not find a single match.
Goal: Iterate until search options are exhausted.
Requirements:

#	Description	Requirement/Include
1	The System locates alternate search criteria located in alias names and alternate addresses.	
ALTERNATE FLOW(S):		
Condition	Link	Return Step
The System has exhausted all search criteria located in alias & historical names and alternate/historical addresses.	IE 2.1	
Next Step:	BF: Basic Flow	1. The System searches for an IHI using UC7: Search for IHI.

Internal Extension (Alternate Flow) IE 2.1

Condition: The System has exhausted all search criteria located in alias & historical names and alternate/historical addresses.
Goal: Handle no match scenario
Requirements:

#	Description	Requirement/Include
1	The System generates an IHI Exception using UC12: Generate IHI Exception with an exception type of "No Match (All Criteria Sets)" and a message of "No unique match found. All demographic information was exhausted".	EX639  UC12: Generate IHI Exception
2	The System records an IHI event.	AL673
Next Step:	IE 2: The HI Service did not find a single match.	EXIT

BUSINESS RULES:

ID	Business Rule
RU661	The System prioritises the data to be used for IHI searching, by initially selecting the Legal/Medicare name where this is identified, the registered address and other fields as required for the particular search. The system then cycles through aliases/alternate data in subsequent searches if required.

DEPENDENCIES:

ID	Description
DP501	That Medicare will support only suburb, postcode, state and country (for Australian addresses) in an address for all HI service requests.

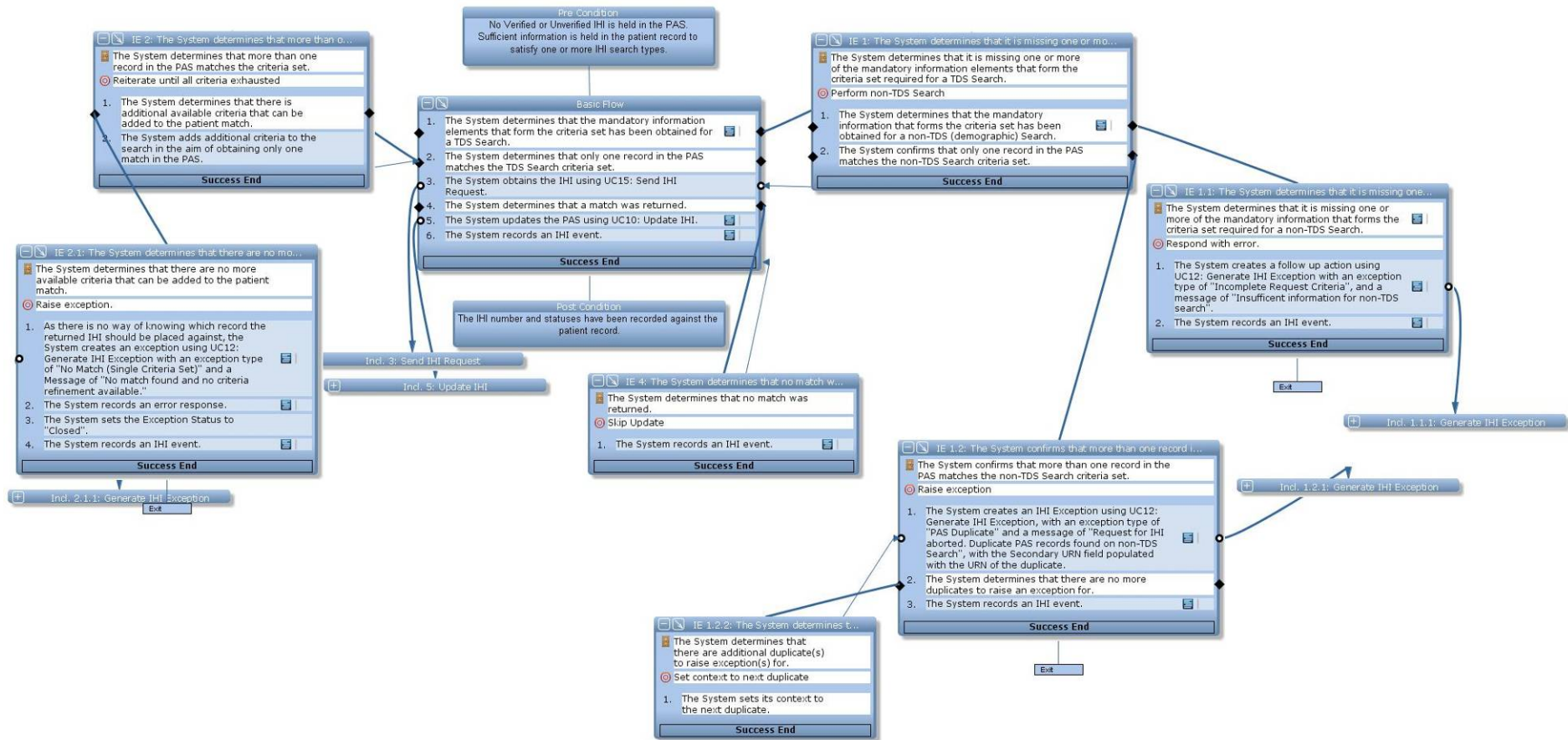
AUDIT LOG:

ID	Name	Description
AL673	Obtain IHI Event - No Match Found	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Obtain IHI"




ID	Name	Description
		<ul style="list-style-type: none"> • Event Status = "Failed" • Event Message = "No unique match found. All demographic information was exhausted"
AL674	Obtain IHI Event - Match Found	<p>Audit Log details captured are as follows:</p> <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Obtain IHI" • Event Status = "Success" • Event Message = "Match found"

3.4 UC7 : Search for IHI

Actors	The PAS System
Overview	<p>The System performs pre-processing before sending a request to the HI Service to locate an IHI for a patient, and then receives a response.</p> <p>This use case focuses on determining the optimum IHI search type (TDS, Basic, Demographic) to send to the HI Service, and adjusts the criteria data to ensure that a unique local PAS record satisfies the search criteria.</p>
Pre Condition	<p>No Verified or Unverified IHI is held in the PAS.</p> <p>Sufficient information is held in the patient record to satisfy one or more IHI search types.</p>
Post Condition	The IHI number and statuses have been recorded against the patient record.
Circumstances of Use	<p>This UC forms a second stage in the retrieval of the IHI following the Obtain IHI UC.</p> <p>This use case will apply when:</p> <ul style="list-style-type: none"> • An IHI is not already allocated to a existing patient record in the PAS; • A new patient record is created, either from a referral or presentation / admission; • Data used for IHI Searching or checking is altered within the patient record (name, DOB, gender, Medicare number, DVA file number, etc), resulting in a new search being required.
Included In (Other Use Cases)	<p>UC8: Obtain IHI</p> <p>UC34: Request IHI Search (Multiple Records)</p> <p>UC24: Validate IHI</p> <p>UC51: Process Patient Details Update</p> <p>UC28: Merge Patient Records</p>
Business Processes	None – See “Included In” Use Cases above.




BASIC FLOW:

#	Description	Requirement/  Include
1	The System determines that the mandatory information elements that form the criteria set has been obtained for a TDS Search.	RU136
ALTERNATE FLOW(S):		
	Condition	Link Return Step
	The System determines that it is missing one or more of the mandatory information elements that form the criteria set required for a TDS Search.	IE 1 3
2	The System determines that only one record in the PAS matches the TDS Search criteria set.	
ALTERNATE FLOW(S):		
	Condition	Link Return Step
	The System determines that more than one record in the PAS matches the criteria set.	IE 2 2
3	The System obtains the IHI using UC15: Send IHI Request.	 UC15: Send IHI Request
4	The System determines that a match was returned.	
ALTERNATE FLOW(S):		
	Condition	Link Return Step
	The System determines that no match was returned.	IE 4
5	The System updates the PAS using UC10: Update IHI.	AL668  UC10: Update IHI
6	The System records an IHI event.	AL139 RU568

Internal Extension (Alternate Flow) IE 1

Condition: The System determines that it is missing one or more of the mandatory information elements that form the criteria set required for a TDS Search.
Goal: Perform non-TDS Search
Requirements:

#	Description	Requirement/  Include
1	The System determines that the mandatory information that forms the criteria set has been obtained for a non-TDS (demographic) Search.	RU137
ALTERNATE FLOW(S):		
	Condition	Link Return Step
	The System determines that it is missing one or more of the mandatory information that forms the criteria set required for a non-TDS Search.	IE 1.1
2	The System confirms that only one record in the PAS matches the non-TDS Search criteria set.	



ALTERNATE FLOW(S):

Condition	Link	Return Step
The System confirms that more than one record in the PAS matches the non-TDS Search criteria set.	IE 1.2	

Next Step: BF: Basic Flow [3. The System obtains the IHI using UC15: Send IHI Request.](#)

Internal Extension (Alternate Flow) IE 1.1



Condition: The System determines that it is missing one or more of the mandatory information that forms the criteria set required for a non-TDS Search.
Goal: Respond with error.
Requirements: [RU137](#)

#	Description	Requirement/  Include
1	The System creates a follow up action using UC12: Generate IHI Exception with an exception type of "Incomplete Request Criteria", and a message of "Insufficient information for non-TDS search".	EX641  UC12: Generate IHI Exception
2	The System records an IHI event.	AL669

Next Step: IE 1: The System determines that it is missing one or more of the mandatory information elements that form the criteria set required for a TDS Search. EXIT

Internal Extension (Alternate Flow) IE 1.2

Condition: The System confirms that more than one record in the PAS matches the non-TDS Search criteria set.
Goal: Raise exception
Requirements:

#	Description	Requirement/  Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "PAS Duplicate" and a message of "Request for IHI aborted. Duplicate PAS records found on non-TDS Search", with the Secondary URN field populated with the URN of the duplicate.	EX642  UC12: Generate IHI Exception
2	The System determines that there are no more duplicates to raise an exception for.	

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that there are additional duplicate(s) to raise exception(s) for.	IE 1.2.2	1

3 The System records an IHI event. [AL670](#)

Next Step: IE 1: The System determines that it is missing one or more of the mandatory information elements that form the criteria set required for a TDS Search. EXIT

Internal Extension (Alternate Flow) IE 1.2.2

Condition: The System determines that there are additional duplicate(s) to raise exception(s) for.

Goal: Set context to next duplicate

Requirements:

#	Description	Requirement/Include
1	The System sets its context to the next duplicate.	

Next Step: IE 1.2: The System confirms that more than one record in the PAS matches the non-TDS Search criteria set. [1. The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "PAS Duplicate" and a message of "Request for IHI aborted. Duplicate PAS records found on non-TDS Search", with the Secondary URN field populated with the URN of the duplicate.](#)

Internal Extension (Alternate Flow) IE 2

Condition: The System determines that more than one record in the PAS matches the criteria set.

Goal: Reiterate until all criteria exhausted

Requirements:

#	Description	Requirement/Include
1	The System determines that there is additional available criteria that can be added to the patient match.	

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that there are no more available criteria that can be added to the patient match.	IE 2.1	
2	The System adds additional criteria to the search in the aim of obtaining only one match in the PAS.	


Next Step: BF: Basic Flow [2. The System determines that only one record in the PAS matches the TDS Search criteria set.](#)

Internal Extension (Alternate Flow) IE 2.1

Condition: The System determines that there are no more available criteria that can be added to the patient match.

Goal: Raise exception.

Requirements:

#	Description	Requirement/Include
1	As there is no way of knowing which record the returned IHI should be placed against, the System creates an exception using UC12: Generate IHI Exception with an exception type of "No Match (Single Criteria Set)" and a Message of "No match found and no criteria refinement available."	EX662  UC12: Generate IHI Exception
2	The System records an error response.	IM140
3	The System sets the Exception Status to "Closed".	
4	The System records an IHI event.	AL666

Next Step: IE 2: The System determines that more than one record in the PAS matches the criteria set. EXIT

Internal Extension (Alternate Flow) IE 4

Condition: The System determines that no match was returned.

Goal: Skip Update

Requirements:

#	Description	Requirement/Include
1	The System records an IHI event.	AL665 AL667

Next Step: BF: Basic Flow

SUCCESS_END

BUSINESS RULES:

ID	Business Rule	Error #	Error Type
RU136	The following details are included in a TDS Search: <ul style="list-style-type: none"> Medicare Number or DVA File Number (one is Mandatory) Family Name (Mandatory) Given Name (Optional) Sex (Mandatory) Date of Birth (Mandatory) Health Service Reference ID IRN is optional (and only used with Medicare Number searches) 	badlyFormedMsg	ESB Error
RU137	The following details are included in a non-TDS Search: <ul style="list-style-type: none"> Family Name (Mandatory) Given Name (Optional) Sex (Mandatory) Date of Birth (Mandatory) Address Fields (TBC: Suburb, Postcode, State, Country combination) Health Service Reference ID 	badlyFormedMsg	ESB Error
RU580	If the DVA file number is held as well as the Medicare Number, the DVA file number is used to search for an IHI over the Medicare Number.	N/A	N/A
RU431	Each time an IHI in the PAS is created or updated, the date of this action must be retained with it. When a check is performed on this IHI, even if the IHI is not updated, the update date must be set as the date of the check.	N/A	N/A
RU568	The IHI Event includes a Comments field and a Transaction ID. When an IHI has been matched on an alias or alternate address, the Comments field must specify this, and the Transaction ID, will be populated with the Transaction ID of the search that was sent up and matched, so that the Actor can then hyperlink to the actual search information to determine the search criteria that resulted in the match.	N/A	N/A
RU570	For a non-TDS Search (Basic Demographic Search), the minimum search criteria that will be sent up is:	N/A	N/A

ID	Business Rule	Error #	Error Type
	<ul style="list-style-type: none"> Surname Date of Birth Sex Health Service Reference ID <p>The following fields may be added to the above in order to achieve a unique result:</p> <ul style="list-style-type: none"> Given Name (if held) Suburb Postcode <p>The Full Demographic Search includes full address information, eg unit number, unit type, street number, street name, street type, street type extension, etc).</p>		

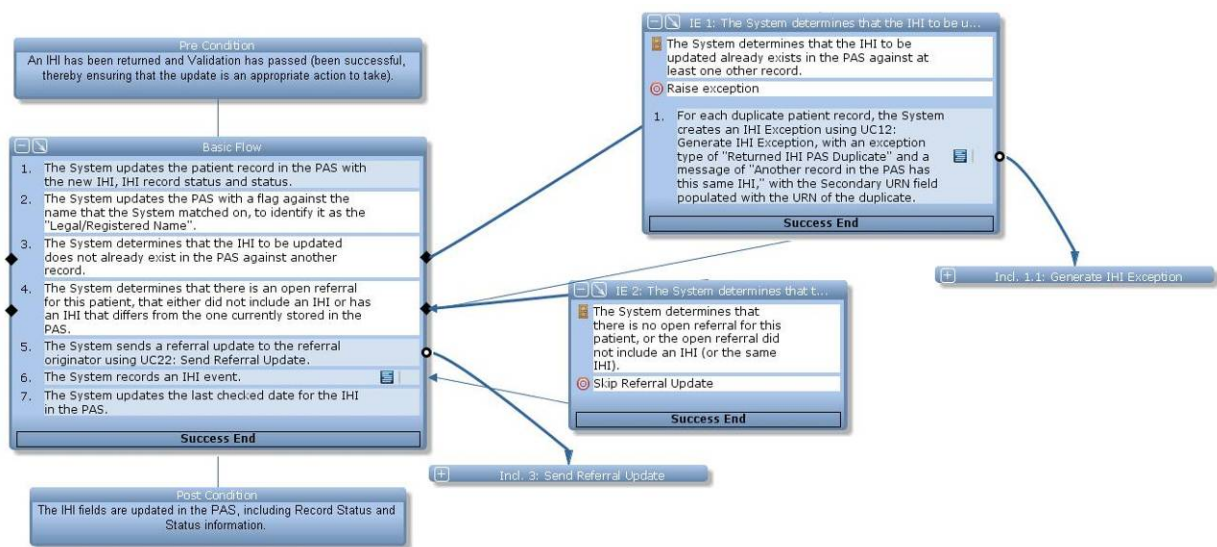
AUDIT LOG:

ID	Name	Description
AL665	TDS Search Event - No Match Found	<p>Audit Log details captured are as follows:</p> <ul style="list-style-type: none"> Date/Time User ID Event Type = "TDS Search" Event Status = "Failed" Event Message = "No IHI match was found."
AL666	TDS Search Event - PAS Duplicate	<p>Audit Log details captured are as follows:</p> <ul style="list-style-type: none"> Date/Time User ID Event Type = "TDS Search" Event Status = "Aborted" Event Message = "The PAS system has duplicate records based on the IHI search criteria."
AL139	TDS Search Event - Match Found	<p>Audit Log details captured are as follows:</p> <ul style="list-style-type: none"> Date/Time User ID Event Type = "TDS Search" Event Status = "Success" Event Message = "Match Found"
AL667	Non-TDS Search Event - No Match Found	<p>Audit Log details captured are as follows:</p> <ul style="list-style-type: none"> Date/Time User ID Event Type = "Non-TDS Search" Event Status = "Failed" Event Message = "No IHI match was found."
AL668	Non-TDS Search Event - Match Found	<p>Audit Log details captured are as follows:</p> <ul style="list-style-type: none"> Date/Time User ID Event Type = "Non-TDS Search" Event Status = "Success" Event Message = "Match Found"
AL669	Non-TDS Search Event - Insufficient Information	<p>Audit Log details captured are as follows:</p> <ul style="list-style-type: none"> Date/Time

ID	Name	Description
		<ul style="list-style-type: none"> • User ID • Event Type = "Non-TDS Search" • Event Status = "Aborted" • Event Message = "The patient record does not have sufficient information held on it to perform the IHI request."
AL670	Non-TDS Search Event - PAS Duplicate	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Non-TDS Search" • Event Status = "Aborted" • Event Message = "The PAS system has duplicate records based on the IHI search criteria."

3.5 UC10 : Update IHI

Actors	The PAS System
Overview	The System updates the IHI fields held in the PAS based on what has been returned by the HI Service.
Pre Condition	An IHI has been returned and Validation has passed (been successful, thereby ensuring that the update is an appropriate action to take).
Post Condition	The IHI fields are updated in the PAS, including Record Status and Status information.
Circumstances of Use	Whenever an IHI has been retrieved or checked via the HI Service.
Included In (Other Use Cases)	UC7: Search for IHI UC9: Check IHI UC11: Request IHI Check (Multiple Records) UC24: Validate IHI UC46: Load Batch IHI Results UC51: Process Patient Details Update UC36: Add Exception Resolution
Business Processes	None – See "Included In" Use Cases above.



BASIC FLOW:

#	Description	Requirement/ Include
1	The System updates the patient record in the PAS with the new IHI, IHI record status and status.	Include
2	The System records the data used for the successful IHI search in the PAS.	
3	The System determines that the IHI to be updated does not already exist in the PAS against another record.	

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that the IHI to be updated already exists in the PAS against at least one other record.	IE 1	4
The System determines that there is an open referral for this patient, that either did not include an IHI or has an IHI that differs from the one currently stored in the PAS.		


ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that there is no open referral for this patient, or the open referral did not include an IHI (or the same IHI).	IE 2	6
The System sends a referral update to the referral originator using UC22: Send Referral Update.		UC22: Send Referral Update
The System records an IHI event.		AL676
The System updates the last checked date for the IHI in the PAS.		

Internal Extension (Alternate Flow) IE 1

Condition:	The System determines that the IHI to be updated already exists in the PAS against at least one other record.
Goal:	Raise exception

Requirements:

#	Description	Requirement/Include
1	For each duplicate patient record, the System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Returned IHI PAS Duplicate" and a message of "Another record in the PAS has this same IHI," with the Secondary URN field populated with the URN of the duplicate.	EX646  UC12: Generate IHI Exception

Next Step: BF: Basic Flow [4. The System determines that there is an open referral for this patient, that either did not include an IHI or has an IHI that differs from the one currently stored in the PAS.](#)

Internal Extension (Alternate Flow) IE 2

Condition: The System determines that there is no open referral for this patient, or the open referral did not include an IHI (or the same IHI).
Goal: Skip Referral Update
Requirements:
Next Step: BF: Basic Flow [6. The System records an IHI event.](#)

BUSINESS RULES:

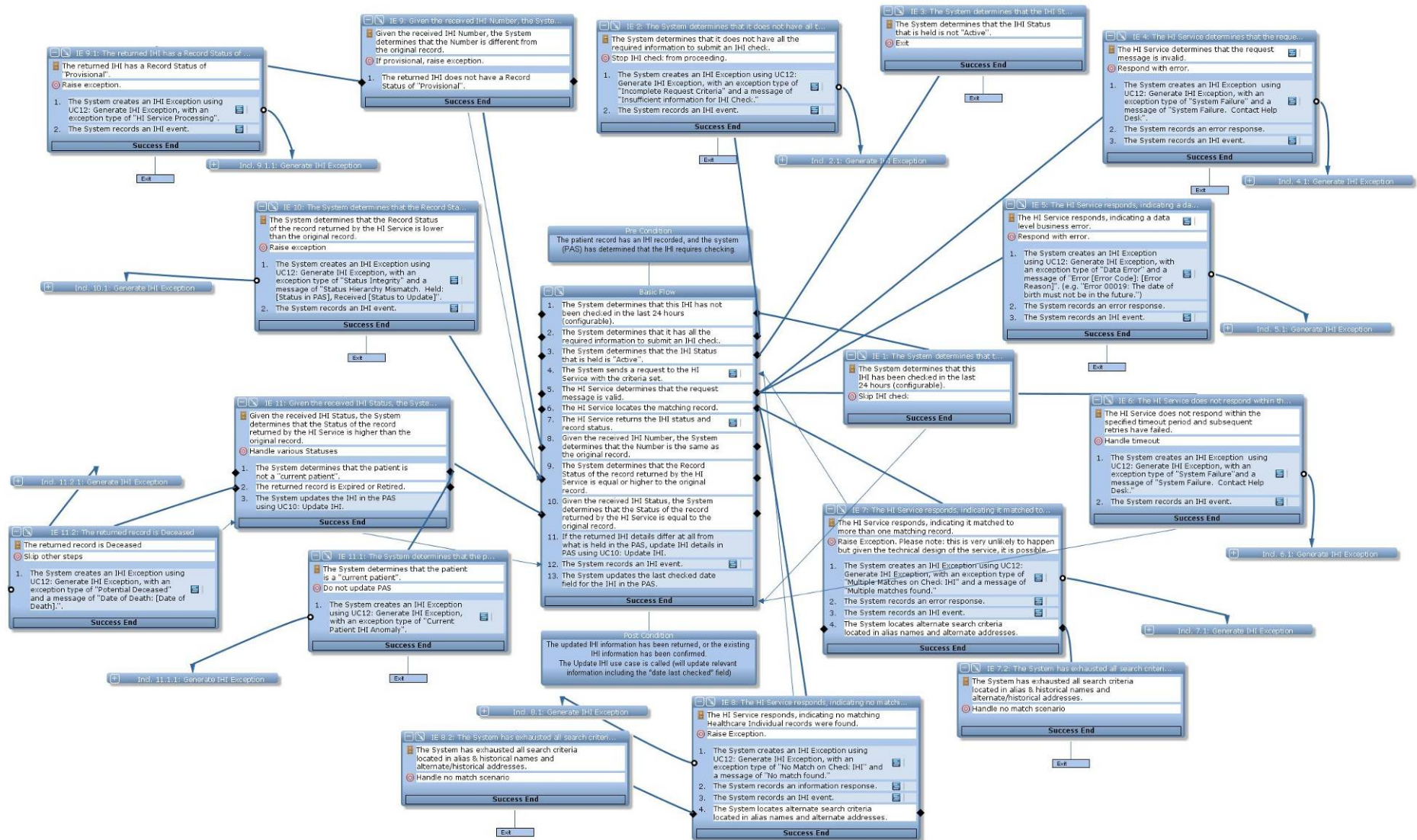
ID	Business Rule
RU431	Each time an IHI in the PAS is created or updated, the date of this action must be retained with it. When a check is performed on this IHI, even if the IHI is not updated, the update date must be set as the date of the check.
RU514	The System must retain a full history of IHI changes, allowing for each instance of an IHI to be searchable.
RU571	Any updated IHI information must be sent back to the referral originators, where this functionality is enabled.

AUDIT LOG:


ID	Name	Description
AL676	Update IHI Event - Success	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Update IHI" • Event Status = "Success" • Event Message = "Update of IHI into PAS successful."

3.6 UC9 : Check IHI

Actors	The PAS System
Overview	Initiates a system request to check the validity and status of an IHI.
Pre Condition	The patient record has an IHI recorded, and the system (PAS) has determined that the IHI requires checking.
Post Condition	The updated IHI information has been returned, or the existing IHI information has been confirmed. The Update IHI use case is called (will update relevant information including the "date last checked" field)
Circumstances of Use	A patient record (or referral) exists which has an IHI with a record status or status that warrants checking, including: <ul style="list-style-type: none"> • Unverified (to check for resolutions to Verified) • Provisional (to check for resolutions to Unverified or Verified) • Any type of IHI where the user is aware that the patient is deceased. • Where the health service has a business rule of checking the IHI status at regular configurable intervals, eg. every 3, 6 or 12 months. • The user has generated a "Patient Records without Recently Checked IHIs" report, and is seeking to validate the IHIs allocated to the patient records. <p>Note that in most cases the system will automatically query the HI Service to check the type and status of the recorded IHI, eg on a scheduled basis.</p>
Included In (Other Use Cases)	UC11: Request IHI Check (Multiple Records) UC24: Validate IHI UC51: Process Patient Details Update UC55: Reset Merge UC18: Send Referral UC19: Send Discharge Summary UC20: Send Order UC21: Process IHI in Referral UC22: Send Referral Update UC23: Send Referral Cancellation UC36: Add Exception Resolution UC40: Perform Merge Analysis
Business Processes	None – See "Included In" Use Cases above.



BASIC FLOW:

#	Description	Requirement/  Include
1	The System determines that this IHI has not been checked in the last 24 hours (configurable).	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that this IHI has been checked in the last 24 hours (configurable).	IE 1
2	The System determines that it has all the required information to submit an IHI check.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that it does not have all the required information to submit an IHI check.	IE 2
3	The System determines that the IHI Status that is held is "Active".	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that the IHI Status that is held is not "Active".	IE 3
4	The System sends a request to the HI Service with the criteria set.	RU220
5	The HI Service determines that the request message is valid.	
ALTERNATE FLOW(S):		
	Condition	Link
	The HI Service determines that the request message is invalid.	IE 4
	The HI Service responds, indicating a data level business error.	IE 5
	The HI Service does not respond within the specified timeout period and subsequent retries have failed.	IE 6
6	The HI Service locates the matching record.	
ALTERNATE FLOW(S):		
	Condition	Link
	The HI Service responds, indicating it matched to more than one matching record.	IE 7
	The HI Service responds, indicating no matching Healthcare Individual records were found.	IE 8
7	The HI Service returns the IHI status and record status.	RU222
8	Given the received IHI Number, the System determines that the Number is the same as the original record.	
ALTERNATE FLOW(S):		
	Condition	Link
	Given the received IHI Number, the System	IE 9

determines that the Number is different from the original record.

- 9 The System determines that the Record Status of the record returned by the HI Service is equal or higher to the original record.

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that the Record Status of the record returned by the HI Service is lower than the original record.	IE 10	

- 10 Given the received IHI Status, the System determines that the Status of the record returned by the HI Service is equal to the original record.

ALTERNATE FLOW(S):

Condition	Link	Return Step
Given the received IHI Status, the System determines that the Status of the record returned by the HI Service is higher than the original record.	IE 11	12

- 11 If the returned IHI details differ at all from what is held in the PAS, update IHI details in PAS using UC10: Update IHI.

- 12 The System records an IHI event. [AL677](#)



- 13 The System updates the last checked date field for the IHI in the PAS.

Internal Extension (Alternate Flow) IE 1

Condition: The System determines that this IHI has been checked in the last 24 hours (configurable).
Goal: Skip IHI check
Requirements:
Next Step: BF: Basic Flow SUCCESS_END

Internal Extension (Alternate Flow) IE 2

Condition: The System determines that it does not have all the required information to submit an IHI check.
Goal: Stop IHI check from proceeding.
Requirements:

#	Description	Requirement/  Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Incomplete Request Criteria" and a message of "Insufficient information for IHI Check."	EX641  UC12: Generate IHI Exception
2	The System records an IHI event.	AL679

Next Step: BF: Basic Flow EXIT


Internal Extension (Alternate Flow) IE 3

Condition: The System determines that the IHI Status that is held is not "Active".
Goal: Exit
Requirements:

Next Step: BF: Basic Flow EXIT

Internal Extension (Alternate Flow) IE 4


Condition: The HI Service determines that the request message is invalid.
Goal: Respond with error.
Requirements: [RU158](#) [RU160](#) [RU162](#) [RU163](#) [RU164](#) [RU165](#) [RU167](#) [RU168](#) [RU169](#) [RU170](#)

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "System Failure" and a message of "System Failure. Contact Help Desk."	EX644  UC12: Generate IHI Exception
2	The System records an error response.	
3	The System records an IHI event.	AL680

Next Step: BF: Basic Flow EXIT

Internal Extension (Alternate Flow) IE 5


Condition: The HI Service responds, indicating a data level business error.
Goal: Respond with error.
Requirements: [RU146](#) [RU148](#) [RU594](#) [RU158](#) [RU162](#) [RU169](#) [RU170](#)

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Data Error" and a message of "Error [Error Code]: [Error Reason]". (e.g. "Error 00019: The date of birth must not be in the future.")	EX648  UC12: Generate IHI Exception
2	The System records an error response.	
3	The System records an IHI event.	AL681

Next Step: BF: Basic Flow EXIT

Internal Extension (Alternate Flow) IE 6


Condition: The HI Service does not respond within the specified timeout period and subsequent retries have failed.
Goal: Handle timeout
Requirements:

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "System Failure" and a message of "System Failure. Contact Help Desk."	EX644  UC12: Generate IHI Exception
2	The System records an IHI event.	AL682

Next Step: BF: Basic Flow SUCCESS_END

Internal Extension (Alternate Flow) IE 7

Condition: The HI Service responds, indicating it matched to more than one matching record.
Goal: Raise Exception. Please note: this is very unlikely to happen but given the technical design of the service, it is possible.
Requirements:

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Multiple Matches on Check IHI" and a message of "Multiple matches found."	EX650  UC12: Generate IHI Exception
2	The System records an error response.	EM142
3	The System records an IHI event.	AL683
4	The System locates alternate search criteria located in alias names and alternate addresses.	

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System has exhausted all search criteria located in alias & historical names and alternate/historical addresses.	IE 7.2	

Next Step: BF: Basic Flow [4. The System sends a request to the HI Service with the criteria set.](#)

Internal Extension (Alternate Flow) IE 7.2

Condition: The System has exhausted all search criteria located in alias & historical names and alternate/historical addresses.

Goal: Handle no match scenario

Requirements:


Next Step: IE 7: The HI Service responds, indicating it matched to more than one matching record. EXIT

Internal Extension (Alternate Flow) IE 8

Condition: The HI Service responds, indicating no matching Healthcare Individual records were found.

Goal: Raise Exception.

Requirements:

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "No Match on Check IHI" and a message of "No match found."	EX640  UC12: Generate IHI Exception
2	The System records an information response.	IM140
3	The System records an IHI event.	AL684
4	The System locates alternate search criteria located in alias names and alternate addresses.	

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System has exhausted all search criteria located in alias & historical names and alternate/historical addresses.	IE 8.2	

Next Step: BF: Basic Flow [4. The System sends a request to the HI Service with the criteria set.](#)

Internal Extension (Alternate Flow) IE 8.2

Condition: The System has exhausted all search criteria located in alias & historical names and alternate/historical addresses.
Goal: Handle no match scenario
Requirements:
Next Step: IE 8: The HI Service responds, indicating no matching Healthcare Individual records were found. EXIT

Internal Extension (Alternate Flow) IE 9

Condition: Given the received IHI Number, the System determines that the Number is different from the original record.
Goal: If provisional, raise exception.
Requirements:

#	Description	Requirement/Include
1	The returned IHI does not have a Record Status of "Provisional".	


ALTERNATE FLOW(S):

Condition	Link	Return Step
The returned IHI has a Record Status of "Provisional".	IE 9.1	

Next Step: BF: Basic Flow [9. The System determines that the Record Status of the record returned by the HI Service is equal or higher to the original record.](#)

Internal Extension (Alternate Flow) IE 9.1


Condition: The returned IHI has a Record Status of "Provisional".
Goal: Raise exception.
Requirements:

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "HI Service Processing".	EX658  UC12: Generate IHI Exception
2	The System records an IHI event.	AL686

Next Step: IE 9: Given the received IHI Number, the System determines that the Number is different from the original record. EXIT

Internal Extension (Alternate Flow) IE 10

Condition: The System determines that the Record Status of the record returned by the HI Service is lower than the original record.
Goal: Raise exception
Requirements:

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Status Integrity" and a message of "Status Hierarchy Mismatch. Held: [Status in PAS], Received [Status to Update]".	EX643  UC12: Generate IHI Exception
2	The System records an IHI event.	AL685

Next Step: BF: Basic Flow EXIT

Internal Extension (Alternate Flow) IE 11

Condition: Given the received IHI Status, the System determines that the Status of the record returned by the HI Service is higher than the original record.

Goal: Handle various Statuses

Requirements:

#	Description	Requirement/Include
1	The System determines that the patient is not a "current patient".	

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that the patient is a "current patient".	IE 11.1	

2 The returned record is Expired or Retired.

ALTERNATE FLOW(S):

Condition	Link	Return Step
The returned record is Deceased	IE 11.2	

3 The System updates the IHI in the PAS using UC10:
Update IHI.


Next Step: BF: Basic Flow [12. The System records an IHI event.](#)

Internal Extension (Alternate Flow) IE 11.1

Condition: The System determines that the patient is a "current patient".

Goal: Do not update PAS

Requirements:

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Current Patient IHI Anomaly".	EX657  UC12: Generate IHI Exception


Next Step: IE 11: Given the received IHI Status, the System determines that the Status of the record returned by the HI Service is higher than the original record. EXIT

Internal Extension (Alternate Flow) IE 11.2

Condition: The returned record is Deceased

Goal: Skip other steps

Requirements:

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Potential Deceased" and a message of "Date of Death: [Date of Death]."	EX647  UC12: Generate IHI Exception

Next Step: IE 11: Given the received IHI Status, the System determines that SUCCESS_END

the Status of the record returned by the HI Service is higher than the original record.

BUSINESS RULES:

ID	Business Rule	Error #	Error Type
RU220	The following details are included in a Check HI Request: <ul style="list-style-type: none"> IHI Number (Mandatory) Family Name (Mandatory) Given Name (Optional) Date of Birth (Mandatory) Sex (Mandatory) 	badlyFormedMsg	ESB Error
RU146	The IHI Number must include a valid check digit.	01514	Error
RU148	The IHI Number must be 16 digits.	01675	Error
RU594	The value should be as follows: http://ns.electronichealth.net.au/id/hi/ihi/1.0/nnnnnnnnnnnnnnnn where nnnnnnnnnnnnnnn is the 16 digit number allocated to the record.	badlyFormedMsg	ESB Error
RU158	The given name may only contain the following character sets: alpha <ul style="list-style-type: none"> numeric apostrophes hyphens Spaces must not appear immediately before or after apostrophes and hyphens.	01418	Error
RU160	The maximum field length for a given name is 40.	badlyFormedMsg	ESB Error
RU162	The family name may only contain the following character sets: alpha <ul style="list-style-type: none"> numeric apostrophes hyphens Spaces must not appear immediately before or after apostrophes and hyphens.	00013	Error
RU163	The maximum field length for a family name is 40.	badlyFormedMsg	ESB Error
RU164	The valid values for sex are <ul style="list-style-type: none"> M (Male) F (Female) I (Intersex or Indeterminate) N (Not stated/inadequately described) 	badlyFormedMsg	ESB Error
RU165	Date of Birth must be eight digits in length, in YYYYMMDD format.	badlyFormedMsg	ESB Error

ID	Business Rule	Error #	Error Type
RU167	Date of Birth must only contain numeric characters.	badlyFormedMsg	ESB Error
RU168	Date of Birth must be a valid calendar date.	badlyFormedMsg	ESB Error
RU169	Year of Birth must be greater or equal to 1800.	00018	Error
RU170	Date of Birth must not be in the future.	00019	Error
RU222	The Check IHI Response contains the following: <ul style="list-style-type: none"> IHI Number IHI Record Status IHI Status Given Name (Only when first name is included in search criteria) Family Name Sex Date of Birth Date of Birth Accuracy Indicator 		N/A
RU431	Each time an IHI in the PAS is created or updated, the date of this action must be retained with it. When a check is performed on this IHI, even if the IHI is not updated, the update date must be set as the date of the check.	N/A	N/A

DEPENDENCIES:

ID	Description
DP500	That Medicare will include the Date of Death in the Retired status response to IHI Check.

AUDIT LOG:


ID	Name	Description
AL677	Check IHI Event - Success	Audit Log details captured are as follows: <ul style="list-style-type: none"> Date/Time User ID Event Type = "Check IHI" Event Status = "Success" Event Message = "Check IHI successful."
AL679	Check IHI Event - Insufficient Information	Audit Log details captured are as follows: <ul style="list-style-type: none"> Date/Time User ID Event Type = "Check IHI" Event Status = "Aborted" Event Message = "The patient record does not have sufficient information held on it to perform the IHI request."
AL680	Check IHI Event - Invalid Request Message	Audit Log details captured are as follows: <ul style="list-style-type: none"> Date/Time User ID Event Type = "Check IHI" Event Status = "Failed"

ID	Name	Description
		<ul style="list-style-type: none"> • Event Message = "Invalid request message"
AL681	Check IHI Event - Data Error	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Check IHI" • Event Status = "Failed" • Event Message = "Error [Error Code]: [Error Reason]". (e.g. "Error 00019: The date of birth must not be in the future.")
AL682	Check IHI Event - Timeout	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Check IHI" • Event Status = "Aborted" • Event Message = "The HI Service is offline."
AL683	Check IHI Event - Multiple Matches	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Check IHI" • Event Status = "Failed" • Event Message = "Multiple Matches found."
AL684	Check IHI Event - No Match Found	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Check IHI" • Event Status = "Failed" • Event Message = "No IHI match was found."
AL685	Check IHI Event - Status Integrity	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Check IHI" • Event Status = "Failed" • Event Message = "Status Hierarchy Mismatch. Held: [Status in PAS], Received [Status to Update]."
AL686	Check IHI Event - Different Provisional	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Check IHI" • Event Status = "Failed" • Event Message = "A different Provisional IHI was returned."

3.7 UC12 : Generate IHI Exception

Actors	The PAS System
Overview	The System generates a task for human follow-up when an IHI issue occurs. Different Exception Levels will be routed to different audiences for follow up, with differing expected response times.
Pre Condition	An exception has occurred in IHI processing.
Post Condition	The exception has been raised. Subsequent actions can be taken in response to specific exception conditions, eg suspending processing if the HI Service is offline.
Circumstances of Use	Whenever an exception occurs in any aspect of obtaining, checking or processing an IHI.
Included In (Other Use Cases)	UC8: Obtain IHI UC7: Search for IHI UC10: Update IHI UC9: Check IHI UC24: Validate IHI 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 UC28: Merge Patient Records UC30: Scan for patient anomalies
Business Processes	None – See “Included In” Use Cases above.

BASIC FLOW:

#	Description	Requirement/  Include
1	<p>The System creates an IHI Exception with the following fields:</p> <ul style="list-style-type: none"> • Exception ID • Parent Exception ID (populated when exception has been raised from attempt to resolve another exception) • Batch ID (if raised from Batch process) • Exception Date • Exception Type • Error Code • Primary IHI • Secondary IHI (if applicable) • Secondary URN (if applicable) • Exception Status = "Created" • processing stage = "Before Presentation" or "After Presentation" depending on whether this exception was generated prior to the patient presenting or once they have presented to the health service. • Resolution Description = blank • Resolution Date = blank • Resolver ID = blank 	

BUSINESS RULES:

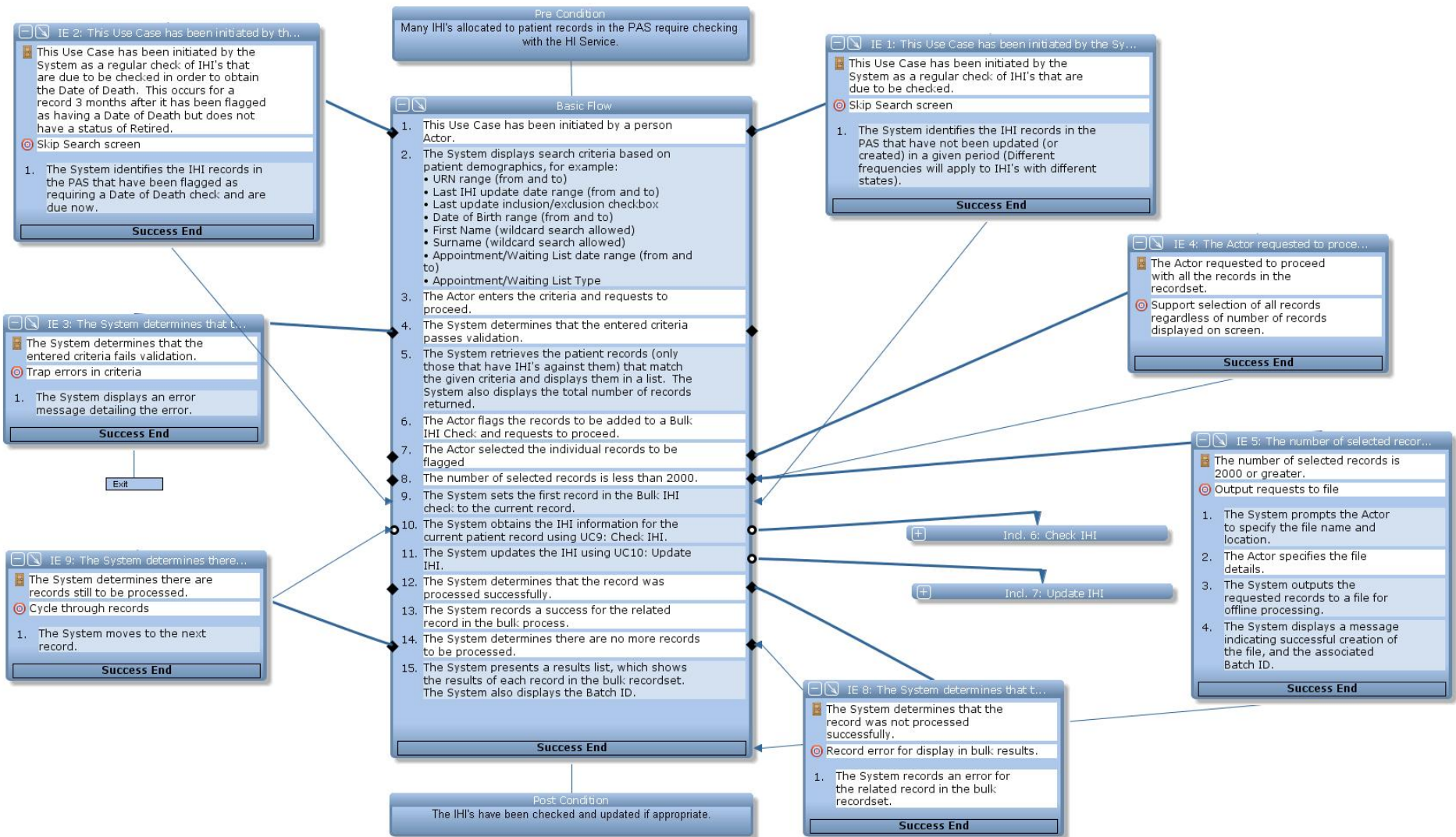
ID	Business Rule
RU418	When raising exceptions, the System must differentiate between exceptions raised prior to a patient presenting, and exceptions raised once a patient has presented and confirmed their details.
RU615	<p>Exceptions Types are:</p> <ul style="list-style-type: none"> • No Match • No Match on Check IHI • Incomplete Request Criteria • PAS Duplicate • Status Integrity • System Failure • Provisional IHI • Returned IHI PAS Duplicate • Potential Deceased • Data Error • Multiple Matches • Multiple Matches on Check IHI • Retired or Expired • HI Duplicate Data

ID	Business Rule
	<ul style="list-style-type: none"> • Unknown • Business Rule Violation • HI Merge Failure • Inconsistent Referral IHI • Current Patient IHI Anomaly • HI Service Processing
RU581	<p>IHI Exception States are:</p> <ul style="list-style-type: none"> • Created • Open (when Exception is viewed) • Pending • Suspended • Closed
RU614	The System will not re-raise IHI Exceptions for paired non-Duplicates.


3.8 UC11 : Request IHI Check (Multiple Records)

Actors	<p>PAS User</p> <p>PAS Clerk</p> <p>The PAS System</p> <p>PAS Administrator</p>
Overview	<p>This use case enables the checking of IHIs allocated to patient records to occur in bulk, via the online or offline batch search facilities in the HI Service.</p> <p>This process may be Initiated manually by the user or by the System</p> <p>For record sets of less than 100 items the HI Service online batch may be used. For larger records sets, they may either be segmented into 100 record groups, or submitted via the offline batch service. The maximum number of items in an offline batch file is 2000, and this must be sent to the HI Service Operator using a secure USB device.</p>
Pre Condition	Many IHIs allocated to patient records in the PAS require checking with the HI Service.
Post Condition	The IHIs have been checked and updated if appropriate.
Circumstances of Use	<p>This use case will apply when:</p> <ul style="list-style-type: none"> • A patient record contains an Unverified or Provisional IHI (frequent checking required so that resolutions can be obtained); • A patient record with a Verified IHI has not been checked and validated within a pre-determined period; • In anticipation of patient appointments in the upcoming week/period, to update the IHI for those patients; or • The HI Service Check IHI function has been unavailable for a period and a number of requests are queued.
Included In (Other Use Cases)	None

Business Processes	BP9: Perform Batch Process
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BASIC FLOW:

#	Description	Requirement/  Include
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1 This Use Case has been initiated by a person Actor.

ALTERNATE FLOW(S):

Condition	Link	Return Step
This Use Case has been initiated by the System as a regular check of IHIs that are due to be checked.	IE 1	9
This Use Case has been initiated by the System as a regular check of IHIs that are due to be checked in order to obtain the Date of Death. This occurs for a record 3 months after it has been flagged as having a Date of Death but does not have a status of Retired.	IE 2	9

2 The System displays search criteria based on patient demographics, for example:

- URN range (from and to)
- Last IHI update date range (from and to)
- Last update inclusion/exclusion checkbox
- Date of Birth range (from and to)
- First Name (wildcard search allowed)
- Surname (wildcard search allowed)
- Appointment/Waiting List date range (from and to)
- Appointment/Waiting List Type

3 The Actor enters the criteria and requests to proceed.

4 The System determines that the entered criteria passes validation.

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that the entered criteria fails validation.	IE 3	

5 The System retrieves the patient records (only those that have IHIs against them) that match the given criteria and displays them in a list. The System also displays the total number of records returned.

6 The Actor flags the records to be added to a Bulk IHI Check and requests to proceed.

7 The Actor selected the individual records to be flagged

ALTERNATE FLOW(S):


Condition	Link	Return Step
The Actor requested to proceed with all the records in the recordset.	IE 4	8

8 The number of selected records is less than 2000.

ALTERNATE FLOW(S):

Condition	Link	Return Step
The number of selected records is 2000 or greater.	IE 5	

9 The System sets the first record in the Bulk IHI check to the current record.

10 [The System obtains the IHI information for the current patient record using UC9: Check IHI.](#)  [UC9: Check IHI](#)

11 [The System updates the IHI using UC10: Update IHI.](#)  [UC10: Update IHI](#)

12 The System determines that the record was processed successfully.

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that the record was not processed successfully.	IE 8	14

13 The System records a success for the related record in the bulk process.

14 The System determines there are no more records to be processed.

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines there are records still to be processed.	IE 9	10


15 The System presents a results list, which shows the results of each record in the bulk recordset. The System also displays the Batch ID.

Internal Extension (Alternate Flow) IE 1

Condition: This Use Case has been initiated by the System as a regular check of IHIs that are due to be checked.

Goal: Skip Search screen

Requirements:

#	Description	Requirement/  Include
1	The System identifies the IHI records in the PAS that have not been updated (or created) in a given period (Different frequencies will apply to IHIs with different states).	


Next Step: BF: Basic Flow [9. The System sets the first record in the Bulk IHI check to the current record.](#)

Internal Extension (Alternate Flow) IE 2

Condition: This Use Case has been initiated by the System as a regular check of IHIs that are due to be checked in order to obtain the Date of Death. This occurs for a record 3 months after it has been flagged as having a Date of Death but does not have a status of Retired.

Goal: Skip Search screen

Requirements:

#	Description	Requirement/  Include
1	The System identifies the IHI records in the PAS that have been flagged as requiring a Date of Death check and are due now.	


Next Step: BF: Basic Flow [9. The System sets the first record in the Bulk IHI check to the current record.](#)

Internal Extension (Alternate Flow) IE 3

Condition: The System determines that the entered criteria fails validation.

Goal: Trap errors in criteria

Requirements:

#	Description	Requirement/  Include
1	The System displays an error message detailing the error.	

Next Step: BF: Basic Flow EXIT

Internal Extension (Alternate Flow) IE 4

Condition: The Actor requested to proceed with all the records in the recordset.
Goal: Support selection of all records regardless of number of records displayed on screen.


Requirements:

Next Step: BF: Basic Flow [8. The number of selected records is less than 2000.](#)

Internal Extension (Alternate Flow) IE 5

Condition: The number of selected records is 2000 or greater.
Goal: Output requests to file

Requirements:


#	Description	Requirement/  Include
1	The System prompts the Actor to specify the file name and location.	
2	The Actor specifies the file details.	
3	The System outputs the requested records to a file for offline processing.	
4	The System displays a message indicating successful creation of the file, and the associated Batch ID.	

Next Step: BF: Basic Flow SUCCESS_END

Internal Extension (Alternate Flow) IE 8

Condition: The System determines that the record was not processed successfully.
Goal: Record error for display in bulk results.

Requirements:

#	Description	Requirement/  Include
1	The System records an error for the related record in the bulk recordset.	

Next Step: BF: Basic Flow [14. The System determines there are no more records to be processed.](#)

Internal Extension (Alternate Flow) IE 9

Condition: The System determines there are records still to be processed.
Goal: Cycle through records

Requirements:

#	Description	Requirement/  Include
1	The System moves to the next record.	

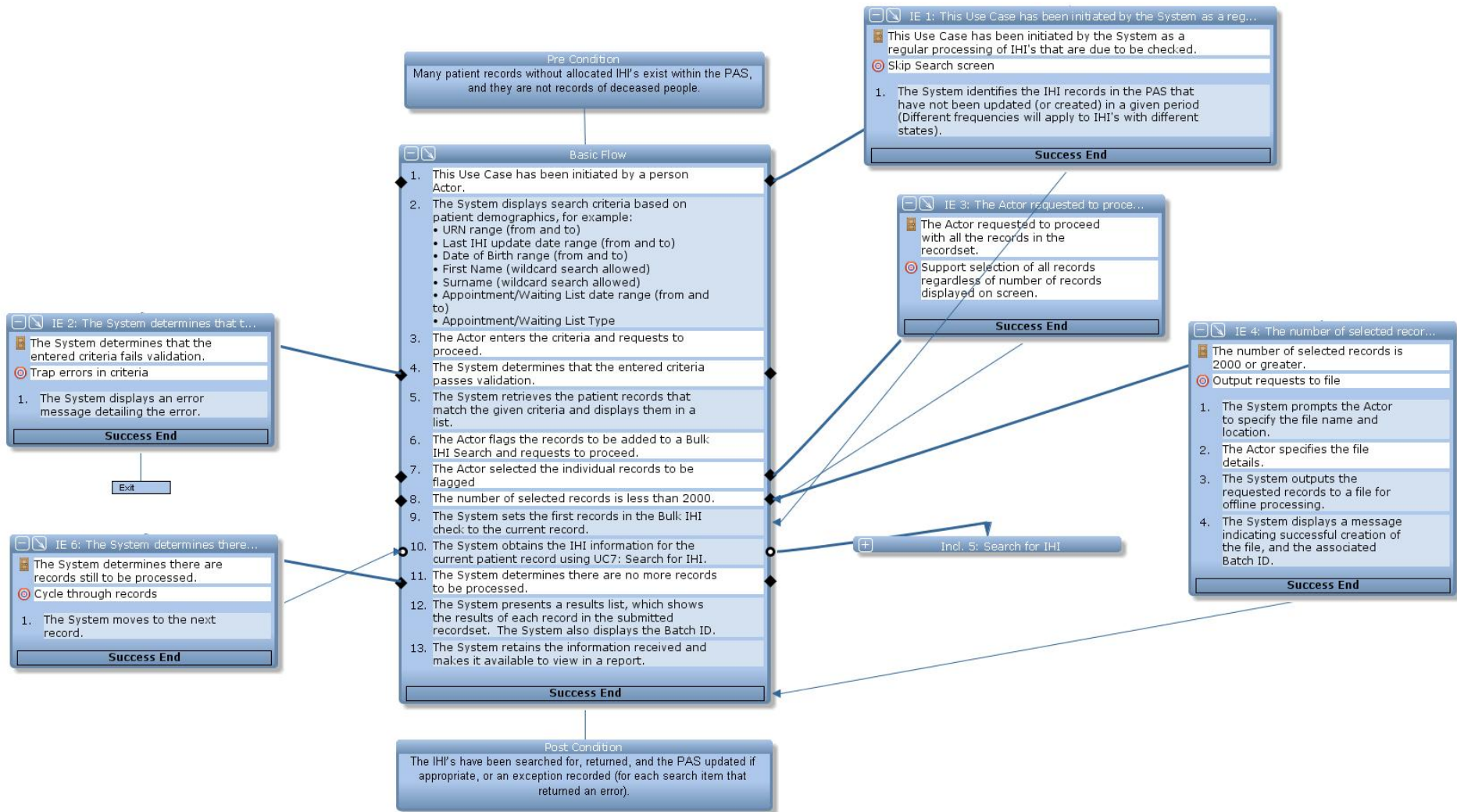
Next Step: BF: Basic Flow [10. The System obtains the IHI information](#)

BUSINESS RULES:


ID	Business Rule	Error #	Error Type
RU431	Each time an IHI in the PAS is created or updated, the date of this action must be retained with it. When a check is performed on this IHI, even if the IHI is not updated, the update date must be set as the date of the check.	N/A	N/A

3.9 UC34 : Request IHI Search (Multiple Records)

Actors	PAS User PAS Clerk The PAS System PAS Administrator
Overview	This use case enables multiple IHI Searches to be submitted in one request, using the HI Service online or offline batch processes. The use case may be Initiated manually by a user or automatically by the System. For record sets of less than 100 items the HI Service online batch may be used. For larger records sets, they may either be segmented into 100 record groups, or submitted via the offline batch service. The maximum number of items in an offline batch file is 2000, and this must be sent to the HI Service Operator using a secure USB device.
Pre Condition	Many patient records without allocated IHIs exist within the PAS, and they are not records of deceased people.
Post Condition	The IHIs have been searched for, returned, and the PAS updated if appropriate, or an exception recorded (for each search item that returned an error).
Circumstances of Use	This use case will apply when: Patient records exist without allocated IHIs, and there is sufficient information to satisfy criteria for one or more IHI Search types (TDS, basic, full); In anticipation of patient appointments in the upcoming week, to search for IHIs for those patients; or The HI Service Search IHI function has been unavailable for a period and a number of requests are queued.
Included In (Other Use Cases)	None
Business Processes	BP9: Perform Batch Process



BASIC FLOW:

#	Description	Requirement/  Include
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1 This Use Case has been initiated by a person Actor.

ALTERNATE FLOW(S):

Condition	Link	Return Step
This Use Case has been initiated by the System as a regular processing of IHIs that are due to be checked.	IE 1	9

2 The System displays search criteria based on patient demographics, for example:

- URN range (from and to)
- Last IHI update date range (from and to)
- Date of Birth range (from and to)
- First Name (wildcard search allowed)
- Surname (wildcard search allowed)
- Appointment/Waiting List date range (from and to)
- Appointment/Waiting List Type

3 The Actor enters the criteria and requests to proceed.

4 The System determines that the entered criteria passes validation.

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that the entered criteria fails validation.	IE 2	

5 The System retrieves the patient records that match the given criteria and displays them in a list.

6 The Actor flags the records to be added to a Bulk IHI Search and requests to proceed.

7 The Actor selected the individual records to be flagged

ALTERNATE FLOW(S):

Condition	Link	Return Step
The Actor requested to proceed with all the records in the recordset	IE 3	8


8 The number of selected records is less than 2000.

ALTERNATE FLOW(S):

Condition	Link	Return Step
The number of selected records is 2000 or greater	IE 4	

9 The System sets the first records in the Bulk IHI check to the current record.

10 [The System obtains the IHI information for the current patient record using UC7: Search for IHI.](#)

 [UC7: Search for IHI](#)

11 The System determines there are no more records to be processed.

ALTERNATE FLOW(S):


Condition	Link	Return Step
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The System determines there are records still to be processed. [IE 6](#) [10](#)

- 12** The System presents a results list, which shows the results of each record in the submitted recordset. The System also displays the Batch ID.
- 13** The System retains the information received and makes it available to view in a report.

Internal Extension (Alternate Flow) IE 1


Condition: This Use Case has been initiated by the System as a regular processing of IHIs that are due to be checked.
Goal: Skip Search screen
Requirements:

#	Description	Requirement/  Include
1	The System identifies the IHI records in the PAS that have not been updated (or created) in a given period (Different frequencies will apply to IHIs with different states).	

Next Step: BF: Basic Flow [9. The System sets the first records in the Bulk IHI check to the current record.](#)

Internal Extension (Alternate Flow) IE 2

Condition: The System determines that the entered criteria fails validation.
Goal: Trap errors in criteria
Requirements:

#	Description	Requirement/  Include
1	The System displays an error message detailing the error.	


Next Step: BF: Basic Flow EXIT

Internal Extension (Alternate Flow) IE 3

Condition: The Actor requested to proceed with all the records in the recordset.
Goal: Support selection of all records regardless of number of records displayed on screen.
Requirements:
Next Step: BF: Basic Flow [8. The number of selected records is less than 2000.](#)

Internal Extension (Alternate Flow) IE 4

Condition: The number of selected records is 2000 or greater.
Goal: Output requests to file
Requirements:

#	Description	Requirement/  Include
1	The System prompts the Actor to specify the file name and location.	
2	The Actor specifies the file details.	
3	The System outputs the requested records to a file for offline processing.	
4	The System displays a message indicating	

successful creation of the file, and the associated Batch ID.

Next Step: BF: Basic Flow SUCCESS_END

Internal Extension (Alternate Flow) IE 6

Condition: The System determines there are records still to be processed.

Goal: Cycle through records

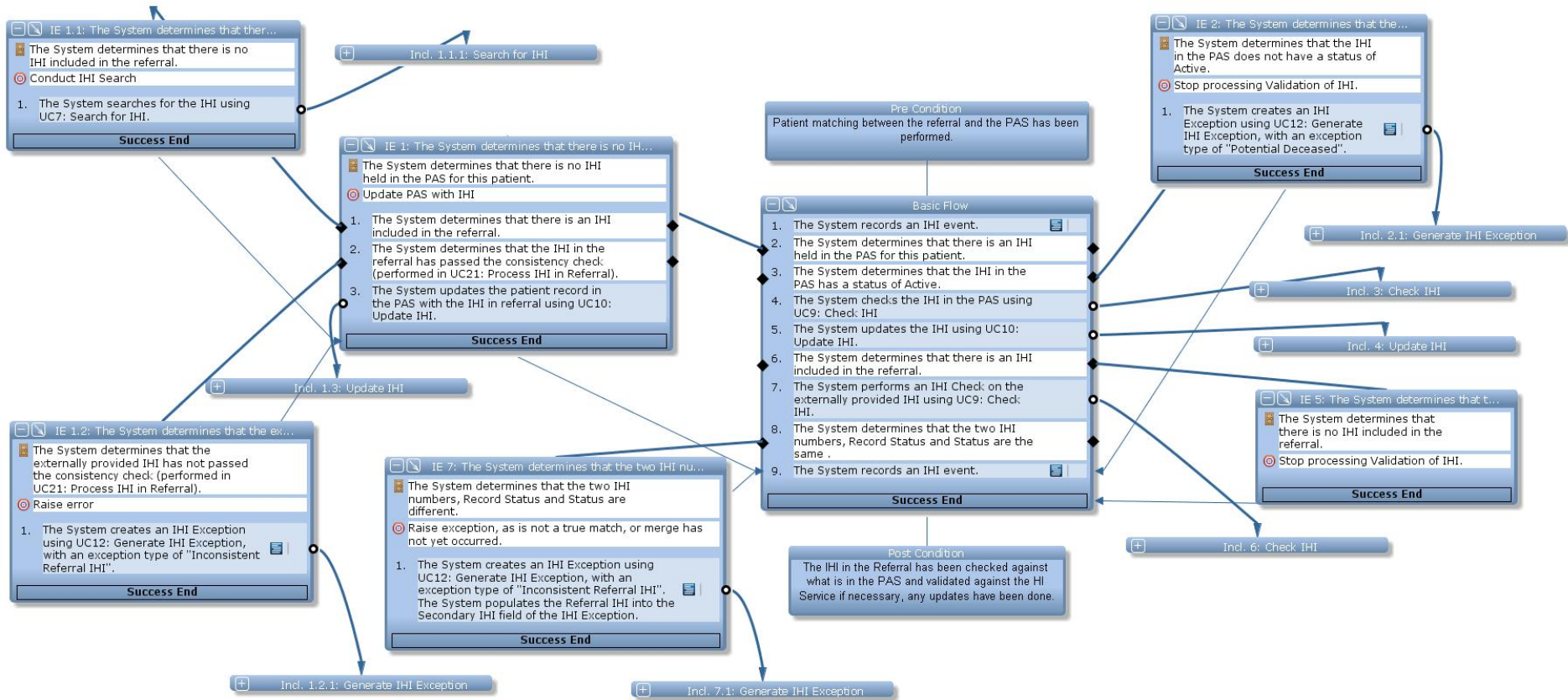
Requirements:

#	Description	Requirement/Include
1	The System moves to the next record.	





Next Step: BF: Basic Flow [10. The System obtains the IHI information for the current patient record using UC7: Search for IHI.](#)

3.10 UC24 : Validate IHI

Actors	The PAS System
Overview	The System checks the incoming IHI against the IHI that is held in the PAS for the patient and determines what to do with discrepancies.
Pre Condition	Patient matching between the referral and the PAS has been performed.
Post Condition	The IHI in the Referral has been checked against what is in the PAS and validated against the HI Service if necessary, any updates have been done.
Circumstances of Use	When a referral has been received.
Included In (Other Use Cases)	None
Business Processes	BP1: Patient Registration from a Referral




BASIC FLOW:

#	Description	Requirement/  Include
1	The System records an IHI event.	AL692
2	The System determines that there is an IHI held in the PAS for this patient.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that there is no IHI held in the PAS for this patient.	IE 1
		Return Step
		9
3	The System determines that the IHI in the PAS has a status of Active.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that the IHI in the PAS does not have a status of Active.	IE 2
		Return Step
		9
4	The System checks the IHI in the PAS using UC9: Check IHI	 UC9: Check IHI
5	The System updates the IHI using UC10: Update IHI.	 UC10: Update IHI
6	The System determines that there is an IHI included in the referral.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that there is no IHI included in the referral.	IE 5
		Return Step
7	The System performs an IHI Check on the externally provided IHI using UC9: Check IHI.	 UC9: Check IHI
8	The System determines that the two IHI numbers, Record Status and Status are the same.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that the two IHI numbers, Record Status and Status are different.	IE 7
		Return Step
		9
9	The System records an IHI event.	AL688

Internal Extension (Alternate Flow) IE 1

Condition: The System determines that there is no IHI held in the PAS for this patient.
Goal: Update PAS with IHI
Requirements:

#	Description	Requirement/  Include
1	The System determines that there is an IHI included in the referral.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that there is no IHI included in	IE 1.1
		Return Step

the referral.

- 2 The System determines that the IHI in the referral has passed the consistency check (performed in UC21: Process IHI in Referral).

ALTERNATE FLOW(S):



Condition	Link	Return Step
The System determines that the externally provided IHI has not passed the consistency check (performed in UC21: Process IHI in Referral).	IE 1.2	

- 3 [The System updates the patient record in the PAS with the IHI in referral using UC10: Update IHI.](#)  [UC10: Update IHI](#)

Next Step: BF: Basic Flow [9. The System records an IHI event.](#)

Internal Extension (Alternate Flow) IE 1.1



Condition: The System determines that there is no IHI included in the referral.
Goal: Conduct IHI Search
Requirements:

#	Description	Requirement/  Include
1	The System searches for the IHI using UC7: Search for IHI.	 UC7: Search for IHI

Next Step: IE 1: The System determines that there is no IHI held in the PAS for this patient. SUCCESS_END

Internal Extension (Alternate Flow) IE 1.2



Condition: The System determines that the externally provided IHI has not passed the consistency check (performed in UC21: Process IHI in Referral).
Goal: Raise error
Requirements:

#	Description	Requirement/  Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Inconsistent Referral IHI".	EX656  UC12: Generate IHI Exception

Next Step: IE 1: The System determines that there is no IHI held in the PAS for this patient. SUCCESS_END

Internal Extension (Alternate Flow) IE 2

Condition: The System determines that the IHI in the PAS does not have a status of Active.
Goal: Stop processing Validation of IHI.
Requirements:

#	Description	Requirement/  Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Potential Deceased".	EX647  UC12: Generate IHI Exception


Next Step: BF: Basic Flow [9. The System records an IHI event.](#)

Internal Extension (Alternate Flow) IE 5

Condition: The System determines that there is no IHI included in the referral.
Goal: Stop processing Validation of IHI.
Requirements:
Next Step: BF: Basic Flow SUCCESS_END

Internal Extension (Alternate Flow) IE 7

Condition: The System determines that the two IHI numbers, Record Status and Status are different.
Goal: Raise exception, as is not a true match, or merge has not yet occurred.
Requirements:

#	Description	Requirement/Include
1	The System creates an IHI Exception using UC12: Generate IHI Exception, with an exception type of "Inconsistent Referral IHI". The System populates the Referral IHI into the Secondary IHI field of the IHI Exception.	EX656  UC12: Generate IHI Exception

Next Step: BF: Basic Flow [9. The System records an IHI event.](#)

BUSINESS RULES:

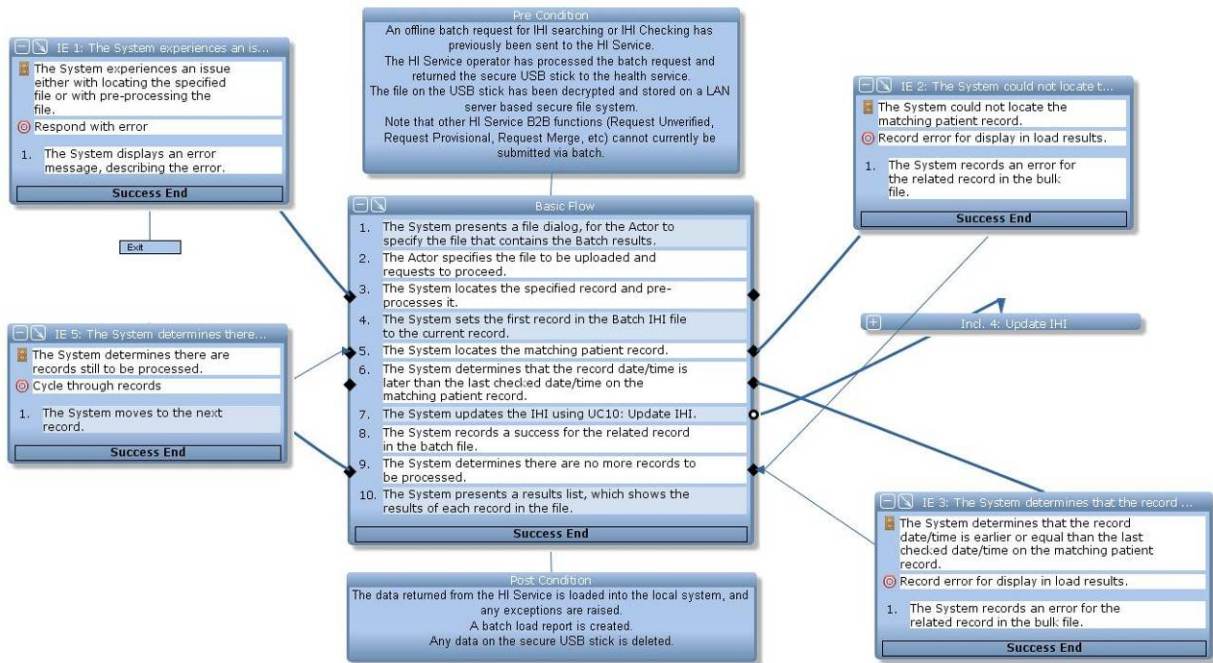
ID	Business Rule
RU413	A Trusted Source is a party that meets all of the following criteria: They have an HPI-O They have declared their compliance with IHI processing obligations.
RU415	At a certain future point, the System will (may) no longer accept referrals from trusted sources that do not include an IHI.

AUDIT LOG:

ID	Name	Description
AL692	Validate IHI Event - Started	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Check IHI" • Event Status = "Started" • Event Message = "Check IHI started."
AL688	Validate IHI Event - Complete	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Check IHI" • Event Status = "Completed" • Event Message = "Check IHI completed."

3.11 UC46 : Load Batch IHI Results

Actors	PAS User PAS Administrator System Administrator
Overview	This is an automated system process to load the results of an offline IHI Search batch request to the HI Service back into the PAS, and raise any exceptions that occurred. The current approach specifies that Medicare Australia (the HI Service operator) will return the batch results to the health service using a secure USB device, and secure transport (eg courier, or perhaps registered mail). Data on the USB stick will need to be persisted in a directory on a secure LAN file system.
Pre Condition	An offline batch request for IHI searching or IHI Checking has previously been sent to the HI Service. The HI Service operator has processed the batch request and returned the secure USB stick to the health service. The file on the USB stick has been decrypted and stored on a LAN server based secure file system. Note that other HI Service B2B functions (Request Unverified, Request Provisional, Request Merge, etc) cannot currently be submitted via batch.
Post Condition	The data returned from the HI Service is loaded into the local system, and any exceptions are raised. A batch load report is created. Any data on the secure USB stick is deleted.
Circumstances of Use	Whenever an IHI offline batch response from the HI Service operator is received by the health service or their nominated receiver (could be HealthSMART Services for example).
Included In (Other Use Cases)	None
Business Processes	BP9: Perform Batch Process



BASIC FLOW:

#	Description	Requirement/ Include
1	The System presents a file dialog, for the Actor to specify the file that contains the Batch results.	
2	The Actor specifies the file to be uploaded and requests to proceed.	
3	The System locates the specified record and pre-processes it.	

ALTERNATE FLOW(S):

Condition	Link	Return Step
The System experiences an issue either with locating the specified file or with pre-processing the file.	IE 1	

4	The System sets the first record in the Batch IHI file to the current record.	
5	The System locates the matching patient record.	


ALTERNATE FLOW(S):

Condition	Link	Return Step
The System could not locate the matching patient record.	IE 2	9

6	The System determines that the record date/time is later than the last checked date/time on the matching patient record.	
---	--	--


ALTERNATE FLOW(S):

Condition	Link	Return Step
The System determines that the record date/time is earlier or equal than the last checked date/time on the matching patient record.	IE 3	9

7	The System updates the IHI using UC10: Update IHI.	 UC10: Update IHI
8	The System records a success for the related record in the batch file.	
9	The System determines there are no more records to be processed.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines there are records still to be processed.	IE 5
		Return Step
		5
10	The System presents a results list, which shows the results of each record in the file.	

Internal Extension (Alternate Flow) IE 1


Condition: The System experiences an issue either with locating the specified file or with pre-processing the file.
Goal: Respond with error
Requirements:

#	Description	Requirement/  Include
1	The System displays an error message, describing the error.	

Next Step: BF: Basic Flow EXIT

Internal Extension (Alternate Flow) IE 2


Condition: The System could not locate the matching patient record.
Goal: Record error for display in load results.
Requirements:

#	Description	Requirement/  Include
1	The System records an error for the related record in the bulk file.	

Next Step: BF: Basic Flow [9. The System determines there are no more records to be processed.](#)

Internal Extension (Alternate Flow) IE 3

Condition: The System determines that the record date/time is earlier or equal than the last checked date/time on the matching patient record.
Goal: Record error for display in load results.
Requirements:

#	Description	Requirement/  Include
1	The System records an error for the related record in the bulk file.	


Next Step: BF: Basic Flow [9. The System determines there are no more records to be processed.](#)

Internal Extension (Alternate Flow) IE 5

Condition: The System determines there are records still to be processed.

Goal: Cycle through records

Requirements:

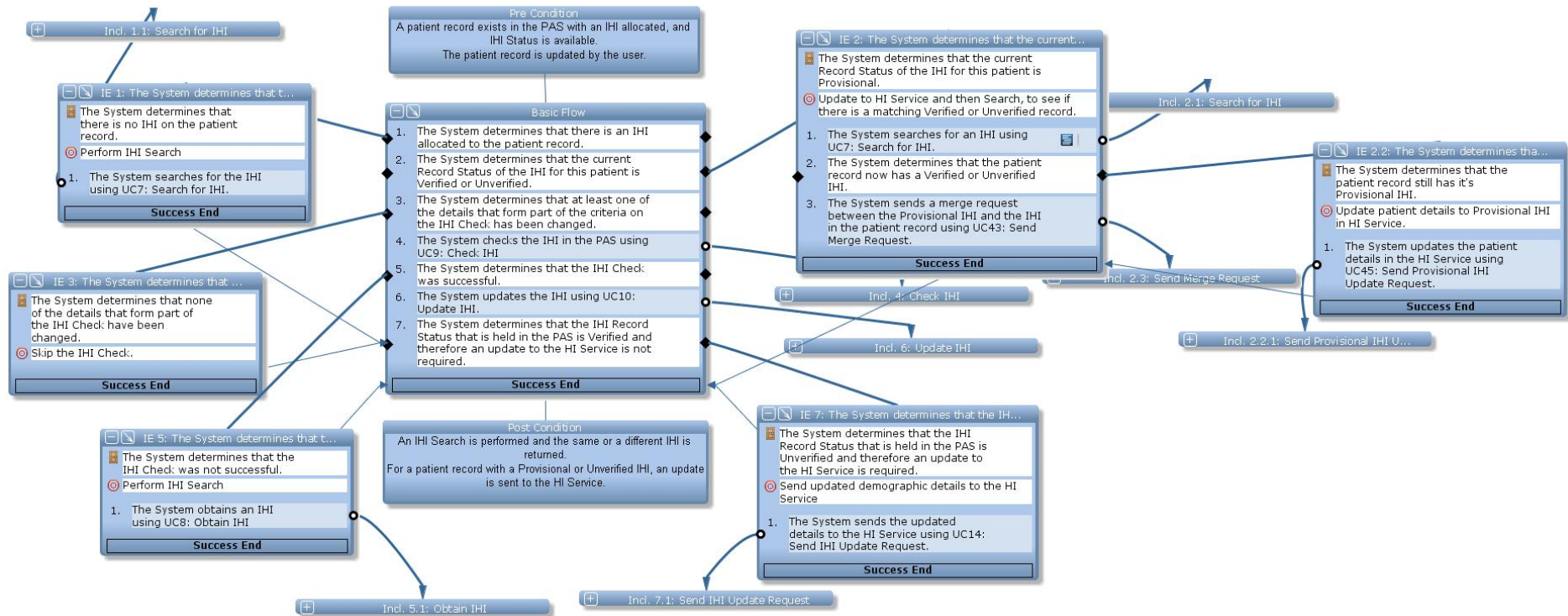
#	Description	Requirement/  Include
1	The System moves to the next record.	

Next Step: BF: Basic Flow




[5. The System locates the matching patient record.](#)

3.12 UC51 : Process Patient Details Update

Actors	The PAS System
Overview	This use case has a dual role in the processing of updates to the patient record that may impact the previously retrieved IHI (ie one or more of the IHI Search criteria are altered), or that require a patient information update to be sent to the HI Service.
Pre Condition	A patient record exists in the PAS with an IHI allocated, and IHI Status is available. The patient record is updated by the user.
Post Condition	An IHI Search is performed and the same or a different IHI is returned. For a patient record with a Provisional or Unverified IHI, an update is sent to the HI Service.
Circumstances of Use	This use case applies when: <ul style="list-style-type: none">• An update is applied to a patient record having a Provisional IHI, to name, DOB or gender fields• An update is applied to a patient record having an Unverified IHI, to name, DOB, gender or address fields• An update is applied to a patient record having a Verified IHI that affects the IHI Search or IHI Check criteria (Medicare number, DVA card number, name, DOB, gender, address).
Included In (Other Use Cases)	UC5: Update Patient Details UC29: Unmerge Patient Records
Business Processes	None – See “Included In” Use Cases above.



BASIC FLOW:

#	Description	Requirement/  Include
1	The System determines that there is an IHI allocated to the patient record.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that there is no IHI on the patient record.	IE 1
		Return Step
		7
2	The System determines that the current Record Status of the IHI for this patient is Verified or Unverified.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that the current Record Status of the IHI for this patient is Provisional.	IE 2
		Return Step
3	The System determines that at least one of the details that form part of the criteria on the IHI Check has been changed.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that none of the details that form part of the IHI Check have been changed.	IE 3
		Return Step
		7
4	The System checks the IHI in the PAS using UC9: Check IHI	 UC9: Check IHI
5	The System determines that the IHI Check was successful.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that the IHI Check was not successful.	IE 5
		Return Step
6	The System updates the IHI using UC10: Update IHI.	 UC10: Update IHI
7	The System determines that the IHI Record Status that is held in the PAS is Verified and therefore an update to the HI Service is not required.	
ALTERNATE FLOW(S):		
	Condition	Link
	The System determines that the IHI Record Status that is held in the PAS is Unverified and therefore an update to the HI Service is required.	IE 7
		Return Step

Internal Extension (Alternate Flow) IE 1

Condition: The System determines that there is no IHI on the patient record.
Goal: Perform IHI Search
Requirements:

#	Description	Requirement/Include
1	The System searches for the IHI using UC7: Search for IHI.	UC7: Search for IHI
Next Step:	BF: Basic Flow	7. The System determines that the IHI Record Status that is held in the PAS is Verified and therefore an update to the HI Service is not required.

Internal Extension (Alternate Flow) IE 2

Condition: The System determines that the current Record Status of the IHI for this patient is Provisional.
Goal: Update to HI Service and then Search, to see if there is a matching Verified or Unverified record.
Requirements:

#	Description	Requirement/Include
1	The System searches for an IHI using UC7: Search for IHI.	RL626 UC7: Search for IHI
2	The System determines that the patient record now has a Verified or Unverified IHI.	
ALTERNATE FLOW(S):		
Condition	Link	Return Step
The System determines that the patient record still has its Provisional IHI.	IE 2.2	
3	The System sends a merge request between the Provisional IHI and the IHI in the patient record using UC43: Send Merge Request.	UC43: Send Merge Request

Next Step: BF: Basic Flow SUCCESS_END

Internal Extension (Alternate Flow) IE 2.2

Condition: The System determines that the patient record still has its Provisional IHI.
Goal: Update patient details to Provisional IHI in HI Service.
Requirements:

#	Description	Requirement/Include
1	The System updates the patient details in the HI Service using UC45: Send Provisional IHI Update Request.	UC45: Send Provisional IHI Update Request


Next Step: IE 2: The System determines that the current Record Status of the IHI for this patient is Provisional. SUCCESS_END

Internal Extension (Alternate Flow) IE 3

Condition: The System determines that none of the details that form part of the IHI Check have been changed.
Goal: Skip the IHI Check.
Requirements:
Next Step: BF: Basic Flow [7. The System determines that the IHI Record Status that is held in the PAS is Verified and therefore an update to the HI Service is not required.](#)

Internal Extension (Alternate Flow) IE 5

Condition: The System determines that the IHI Check was not successful.
Goal: Perform IHI Search
Requirements:

#	Description	Requirement/Include
1	The System obtains an IHI using UC8: Obtain IHI	 UC8: Obtain IHI

Next Step: BF: Basic Flow SUCCESS_END

Internal Extension (Alternate Flow) IE 7

Condition: The System determines that the IHI Record Status that is held in the PAS is Unverified and therefore an update to the HI Service is required.
Goal: Send updated demographic details to the HI Service
Requirements:

#	Description	Requirement/Include
1	The System sends the updated details to the HI Service using UC14: Send IHI Update Request.	 UC14: Send IHI Update Request

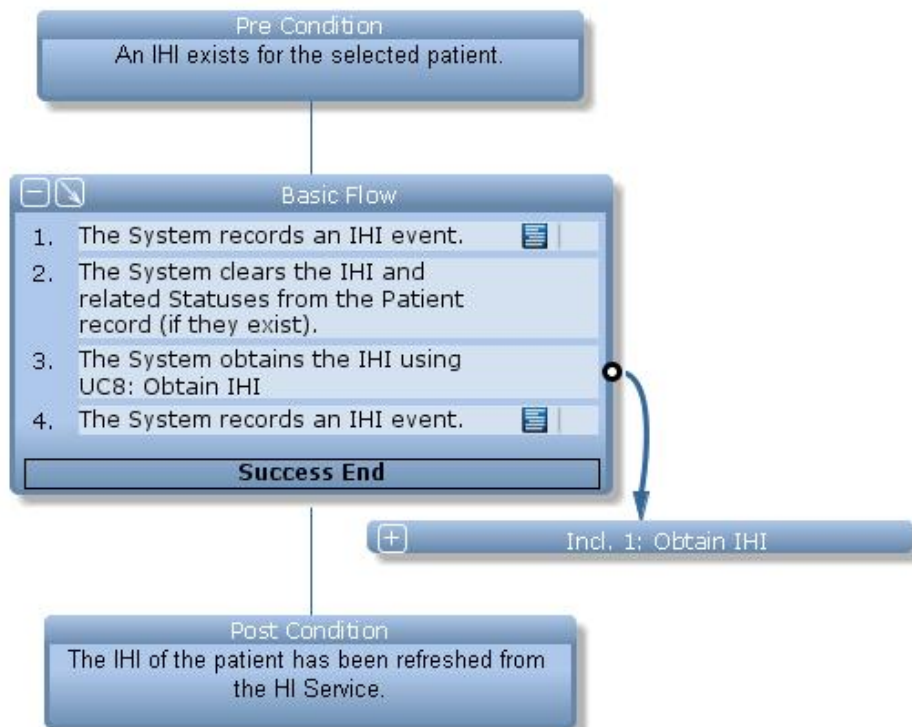
Next Step: BF: Basic Flow SUCCESS_END

RATIONALE:



ID	Rationale
RL626	As there is now more information for this Provisional IHI, it is possible that there exists a Verified or Unverified IHI with these same details, so a search for a Verified or Unverified IHI is conducted.

3.13 UC54 : Refresh IHI

Actors	The PAS System
Overview	This Use Case deletes the current IHI number, IHI Status and IHI Record Status in the patient record (without removing the IHI History) and then searches for an IHI again.
Pre Condition	An IHI exists for the selected patient.
Post Condition	The IHI of the patient has been refreshed from the HI Service.
Circumstances of Use	When an IHI Exception has been raised and the Actor has decided to Obtain the IHI from scratch, regardless of what is currently held as the IHI. The following Exception Types allow for this Resolution Type: <ul style="list-style-type: none"> • System Failure • Status Integrity • HI Duplicate Data • No Match on Check IHI
Included In (Other Use Cases)	UC36: Add Exception Resolution
Business Processes	None – See “Included In” Use Cases above.



BASIC FLOW:

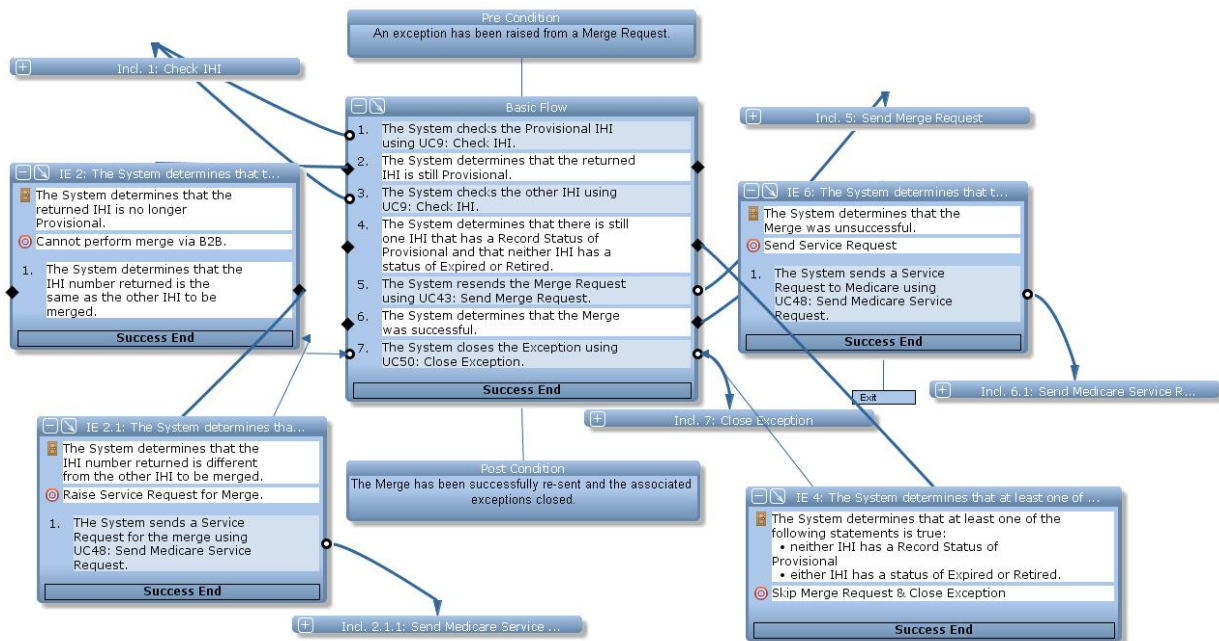
#	Description	Requirement/  Include
1	The System records an IHI event.	AL690
2	The System clears the IHI and related Statuses from the Patient record (if they exist).	
3	The System obtains the IHI using UC8: Obtain IHI	 UC8: Obtain IHI
4	The System records an IHI event.	AL691

AUDIT LOG:






ID	Name	Description
AL690	Refresh IHI Event - Started	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Refresh IHI" • Event Status = "Started" • Event Message = "Refresh IHI started."
AL691	Refresh IHI Event - Completed	Audit Log details captured are as follows: <ul style="list-style-type: none"> • Date/Time • User ID • Event Type = "Refresh IHI" • Event Status = "Completed" • Event Message = "Refresh IHI completed."

3.14 UC55 : Reset Merge

Actors	The PAS System
Overview	This Use Case re-checks the IHIs submitted as part of the Merge Request that previously failed, and if appropriate re-sends the Merge request to the HI Service.
Pre Condition	An exception has been raised from a Merge Request.
Post Condition	The Merge has been successfully re-sent and the associated exceptions closed.
Circumstances of Use	Requested by the HIM as a result of a "HI Merge Failure" exception being raised during a Merge Request. Circumstances that cause an exception like this to arise are: <ul style="list-style-type: none"> • The IHI Record sent up as the Provisional Record is not Provisional • The IHI Record sent up as the Unverified/Verified Record is not Unverified/Verified • An IHI sent in the message is not found in the HI Service • An IHI sent in the message does not have a status of Active or Deceased.
Included In (Other Use Cases)	UC36: Add Exception Resolution
Business Processes	None – See “Included In” Use Cases above.




BASIC FLOW:

#	Description	Requirement/  Include
1	The System checks the Provisional IHI using UC9: Check IHI.	 UC9: Check IHI
2	The System determines that the returned IHI is still Provisional.	
ALTERNATE FLOW(S):		
	Condition	Link Return Step
	The System determines that the returned IHI is no longer Provisional.	IE 2 7
3	The System checks the other IHI using UC9: Check IHI.	 UC9: Check IHI
4	The System determines that there is still one IHI that has a Record Status of Provisional and that neither IHI has a status of Expired or Retired.	
ALTERNATE FLOW(S):		
	Condition	Link Return Step
	The System determines that at least one of the following statements is true: <ul style="list-style-type: none"> • neither IHI has a Record Status of Provisional • either IHI has a status of Expired or Retired. 	IE 4 7
5	The System resends the Merge Request using UC43: Send Merge Request.	 UC43: Send Merge Request
6	The System determines that the Merge was successful.	
ALTERNATE FLOW(S):		
	Condition	Link Return Step
	The System determines that the Merge was unsuccessful.	IE 6
7	The System closes the Exception using UC50: Close Exception.	 UC50: Close Exception

Internal Extension (Alternate Flow) IE 2

Condition: The System determines that the returned IHI is no longer Provisional.
Goal: Cannot perform merge via B2B.
Requirements:


#	Description	Requirement/  Include
1	The System determines that the IHI number returned is the same as the other IHI to be merged.	
ALTERNATE FLOW(S):		
	Condition	Link Return Step
	The System determines that the IHI number returned is different from the other IHI to be merged.	IE 2.1

Next Step: BF: Basic Flow [7. The System closes the Exception using](#)

[UC50: Close Exception.](#)

Internal Extension (Alternate Flow) IE 2.1

Condition: The System determines that the IHI number returned is different from the other IHI to be merged.
Goal: Raise Service Request for Merge.
Requirements:

#	Description	Requirement/Include
1	The System sends a Service Request for the merge using UC48: Send Medicare Service Request.	 UC48: Send Medicare Service Request

Next Step: IE 2: The System determines that the returned IHI is no longer Provisional. SUCCESS_END

Internal Extension (Alternate Flow) IE 4

Condition: The System determines that at least one of the following statements is true:

- neither IHI has a Record Status of Provisional
- either IHI has a status of Expired or Retired.

Goal: Skip Merge Request & Close Exception
Requirements:
Next Step: BF: Basic Flow [7. The System closes the Exception using UC50: Close Exception.](#)

Internal Extension (Alternate Flow) IE 6

Condition: The System determines that the Merge was unsuccessful.
Goal: Send Service Request
Requirements:

#	Description	Requirement/Include
1	The System sends a Service Request to Medicare using UC48: Send Medicare Service Request.	 UC48: Send Medicare Service Request

Next Step: BF: Basic Flow EXIT

4. Messages

4.1 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].

4.2 IHI Exceptions

ID	Name	Message
EX639	No Match (All Criteria Sets)	No unique match found. All demographic information was exhausted.
EX662	No Match (Single Criteria)	No match found and no criteria refinement available.
EX663	No Match (After Merge)	No match found after merge and updated details.
EX664	No Match	No match was found in the HI Service.
EX640	No Match on Check IHI	No Match found.
EX641	Incomplete Request Criteria	[Message text varies for each Use Case it occurs in.]
EX642	PAS Duplicate	Request for IHI aborted. Duplicate PAS records found on non-TDS Search.
EX643	Status Integrity	Status Hierarchy Mismatch. Held: [Status in PAS], Received [Status to Update]"
EX644	System Failure	System Failure. Contact Help Desk.
EX645	Provisional IHI	Provisional IHI
EX646	Returned IHI PAS Duplicate	Another record in the PAS has this same IHI, [with the Secondary URN field populated with the URN of the duplicate].
EX647	Potential Deceased	Date of Death: [Date of Death].
EX648	Data Error	Error [Error Code]: [Error Reason]". (e.g. "Error 00019: The date of birth must not be in the future.")
EX649	Multiple Matches	Multiple matches found.
EX650	Multiple Matches on Check IHI	Multiple matches found.
EX652	HI Duplicate Data	"Existing Verified or Unverified IHI record with the same details." or blank
EX653	Unknown	Unknown
EX654	Business Rule Violation	Error [Error Code]: [Error Reason]
EX655	HI Merge Failure	HI Merge Failure
EX656	Inconsistent Referral IHI	Inconsistent Referral IHI
EX657	Current Patient IHI Anomaly	Current Patient IHI Anomaly
EX658	HI Service Processing	HI Service Processing