



**eHealth Integration Sample Code – UI v2.0.3  
Module – Web UI**

2 February 2016

Approved for external use

**National E-Health Transition Authority Ltd**

Level 25, 56 Pitt Street  
Sydney, NSW 2000  
Australia  
[www.nehta.gov.au](http://www.nehta.gov.au)

**Acknowledgements****Council of Australian Governments**

The National E-Health Transition Authority is jointly funded by the Australian Government and all State and Territory Governments.

**HL7 International**

This document includes excerpts of HL7™ International standards and other HL7 International material. HL7 International is the publisher and holder of copyright in the excerpts. The publication, reproduction and use of such excerpts is governed by the HL7 IP Policy (see <http://www.hl7.org/legal/ippolicy.cfm>) and the HL7 International License Agreement. HL7 and CDA are trademarks of Health Level Seven International and are registered with the United States Patent and Trademark Office.

**Disclaimer**

The National E-Health Transition Authority Ltd (NEHTA) makes the information and other material ('Information') in this document available in good faith but without any representation or warranty as to its accuracy or completeness. NEHTA cannot accept any responsibility for the consequences of any use of the Information. As the Information is of a general nature only, it is up to any person using or relying on the Information to ensure that it is accurate, complete and suitable for the circumstances of its use.

**Document control**

This document is maintained in electronic form and is uncontrolled in printed form. It is the responsibility of the user to verify that this copy is the latest revision.

**Copyright © 2016 National E-Health Transition Authority Ltd**

This document contains information which is protected by copyright. All Rights Reserved. No part of this work may be reproduced or used in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems—without the permission of NEHTA. All copies of this document must include the copyright and other information contained on this page.

# Document information

## Key information

**Owner** Head of Delivery

**Contact for enquiries** NEHTA Help Centre

t: 1300 901 001

e: [help@nehta.gov.au](mailto:help@nehta.gov.au)

## Product version history

---

Product version	Date	Release comments
1.0	February 2014	Initial release (HIPS 4.1.0)
2.0	February 2015	See release note (NEHTA-2040:2015) for details of changes and bug fixes.
2.0.1 2.0.2		Unpublished updates.
2.0.3	February 2016	See release note (NEHTA-2185:2016) for details of changes and bug fixes.

---

# Table of contents

<b>1. Introduction .....</b>	<b>6</b>
1.1 Purpose.....	6
<b>2. Architectural Detail.....</b>	<b>8</b>
2.1 Component Model & Navigation .....	8
2.1.1 Home .....	8
2.1.2 Patient List.....	9
2.1.3 PCEHR Access Check & Gain Access .....	10
2.1.4 Patient Summary .....	15
2.1.5 Document List .....	16
2.1.6 Prescription Dispense View.....	17
2.1.7 Document View .....	18
2.1.8 Current Patient List .....	19
2.1.9 Adult Patient Registration.....	20
2.1.10 Dependant Patient Registration.....	22
2.1.11 New Applicant Registration.....	24
2.1.12 New Dependant Registration .....	26
2.1.13 Registration Response .....	29
2.1.14 Patients Without IHI.....	30
2.1.15 Disclose Hidden PCEHR.....	38
2.1.16 Withdraw Consent.....	47
2.1.17 Remove Document.....	60
2.1.18 Upload PDF Discharge Summary .....	73
2.2 Embedded Pages .....	85
2.2.1 Adult Patient Registration.....	85
2.2.2 Dependent Patient Registration.....	85
2.2.3 Patient Summary .....	86
2.2.4 Upload PDF Discharge Summary .....	87
2.3 Architecture Overview .....	88
2.4 Interaction Model.....	90
2.4.1 List Patients in Hospital.....	90
2.4.2 List & View all Clinical Documents .....	91
2.4.3 View Combined Prescriptions & Dispensing.....	92
2.4.4 PCEHR Access Check & Gain Access .....	93
2.5 Deployment Model .....	94
2.5.1 Assumed Operating Environment .....	94
2.5.2 Configuration .....	95
2.6 Cross-Cutting .....	95
2.6.1 Dependency Injection .....	95
2.6.2 Caching .....	96
2.6.3 Error Handling .....	97
2.6.4 Error Logging .....	99
2.7 Security Model .....	99
2.7.1 Authentication .....	99
2.7.2 Authorisation.....	101

<b>3. Appendix A .....</b>	<b>102</b>
3.1 Assumptions .....	102
3.2 Constraints .....	102
3.3 Design Challenges .....	103
3.4 Technical Design Decisions.....	103

# 1. Introduction

## 1.1 Purpose

The eHISC-UI has the following key features to support non-jurisdictional hospitals integrating with national eHealth:

- **Data Integrity Management**, providing a report that lists patients whose IHI was not found using automated searches with the current demographic data from the PAS. The hospital staff may use this report to identify patients whose demographic information may have been entered incorrectly and confirm their legal name, sex, date of birth and Medicare card or DVA file numbers and make corrections in the PAS.
- **Consent Management**, providing a data-entry form to capture the withdrawal of consent to upload a discharge summary to the PCEHR<sup>1</sup> system. This information will be captured in the eHISC database and eHISC will prevent the upload of the discharge summary if consent has been withdrawn.
- **Disclosure of PCEHR**, providing a data-entry form to capture the disclosure of the existence of a PCEHR record whose existence was not automatically flagged on admission to hospital due to the restricted access settings applied to the record by the consumer.
- **Removal of Documents**, providing a capability to select a clinical document that has been uploaded to the PCEHR by the organisation using eHISC, record the reason why the document must be removed from the PCEHR system, submit the request to eHISC to remove the document, and verify that the document has been removed successfully.
- **Patient List**, Provides a searchable list of patients with an advertised PCEHR who are currently resident in hospital. Allows selection of a patient to view the documents and prescription dispense view available through their PCEHR via the "Patient Summary" screen.
- **Patient Summary**, Provides access to "Document List" and "Prescription Dispense View" as components of the screen and to "Gain Access" separately.
- **Document List**, Provides a searchable list of documents available through the selected patient's PCEHR. Allows selection of a document to view its contents via the "Document View" screen.
- **Document View**, Accessed from the "Document List" or "Prescription Dispense View" component when a document is selected. Provides a rendered view of the selected document's contents.
- **Prescription Dispense View**, Provides a combined view of the prescription and dispense history for the selected patient available via the NPDR.
- **PCEHR Access Check & Gain Access**, Checks the current access to the selected patient's PCEHR and if required enables the user to gain access to the selected patient's PCEHR (a) without code; (b) with code; (c) emergency access.

This document will provide a detailed view of the design of eHISC-UI Web and eHISC Core extensions to enable the eHISC-UI Web product to support non-jurisdictional hospitals integrating with national eHealth. Summary

---

<sup>1</sup> **Disclaimer:** PCEHR means the My Health Record, formally the "Personally Controlled Electronic Health Record", within the meaning of the *My Health Records Act 2012* (Cth), formerly called the *Personally Controlled Electronic Health Records Act 2012* (Cth).

The eHISC suite consists of the following products:

- **eHISC-Core:** A middleware and communications solution to enable a CIS (Clinical Information System) and a PAS (Patient Administration System) to interact with the National eHealth Record System. The solution can interface with an Enterprise Service Bus (ESB) to receive HL7 records from the PAS systems for patient and episode information and IHI lookups, and CDA documents from the clinical systems for upload to PCEHR. It can also be used as a broker to the PCEHR without the need of an interface to an ESB for upload and retrieval of documents from the PCEHR.
- **eHISC-UI:** An extension of the core services provided by the eHISC-Core product, providing a web-based user interface for fulfilling common interaction requirements with the PCEHR, including features such as PCEHR Viewing (including Prescriptions), Level 1A Document Uploads (eHISC Core can support all levels and types of document uploads), PCEHR Document Removal, PCEHR Consent Withdrawal, Hidden PCEHR Disclosure, Assisted Registration, HPI-I Search and Data Integrity.

## 2. Architectural Detail

### 2.1 Component Model & Navigation

Navigation is done either through the eHISC-UI menu or direct via the embedded pages. Section 2.2 describes the embedded pages.

#### 2.1.1 Home

The screenshot shows the nehta Home page. At the top left, the nehta logo is displayed with version information: "Version 1.0.0" and "Internal Version: 1.0.0.2". To the right of the logo are logos for "chamonix IT CONSULTING", "eHealth", and "The Personally Controlled eHealth Record System". Below the logos is a navigation menu with items: "Home", "Assisted Registration", "HPI-I Search", and "PCEHR View". A callout points to the "PCEHR View" menu item, stating: "PCEHR View" menu displays "Patient List" screen. Below the navigation menu is a large banner image showing a close-up of a person's ear being examined with a stethoscope. Below the banner is a section with three columns of menu items: "Assisted Registration" (Current Patients, New Applicant, New Dependant), "HPI-I Search" (HPI-I Validation, Demographics Search), and "PCEHR View" (Current Patients). A callout points to this menu area, stating: "Available menus (features) are controlled by security configuration." In the bottom right corner of the page content, there is another logo for "The Personally Controlled eHealth Record System".

Public version number. Tooltip displays internal version number.

Available menus (features) are controlled by security configuration.

"PCEHR View" menu displays "Patient List" screen.

The "Home" screen is the entry point into the eHISC-UI Web product. It provides a "PCEHR View" menu item to access the PCEHR Web Viewer feature.

## 2.1.2 Patient List

The annotated image below illustrates the functional design for the “Patient List” screen accessed via the “PCEHR Web Viewer” menu item on the “Home” screen.

**Annotations:**

- Title:** Title to be “Hospitals” if no hospital is selected, or “Patients at <Hospital Name>” when a hospital is selected.
- Hospital Selection:** Filter to select location (hospital).
- Search:** Filtering based on partial match of contents of any text-based column in results.
- Table Headers:** Results to display: Name, Date of Birth, Location (Ward, Room, Bed), MRN, IHI.
- Table Content:** Results contain patients who have an advertised PCEHR and are currently resident in hospital. Results **do not** contain patients with any current alerts.
- Table Actions:** “View Patient Summary” button displays “Patient Summary” screen for selected patient.
- Table Sorting:** Sorting of results (asc / desc). Default sort: Name, Date of Birth.
- Table Definition:** Definition of “current” to allow for configurable window of discharge – eg not discharged, or discharged within x days of current date.
- Table Summary:** Summary of matching results.
- Table IHI:** Display format for IHI: nnnn nnnn nnnn nnnn
- Table Footer:** Paging of results. Page size: 10.

Name	Date of Birth	Location	MRN	IHI	Actions
DUNCAN, ALEXANDER	05/05/2009	AG::	TEST-CCA_13	8003 6034 5679 9528	[View Patient Summary]
FORDE, FREDERICK	16/01/1928	AG::B3	TEST-PCEHR_22	8003 6045 7063 1431	[View Patient Summary]
GIBBS, GEORGE	20/03/1990	AG::B2	TEST-PCEHR_23	8003 6067 9186 4386	[View Patient Summary]
HOBBS, LUDWIG PHILIP	26/04/1995	W1::B3	RENDERING	8003 6083 3334 5684	[View Patient Summary]
JONES, LILY MAY	30/08/1990	W5::B2	TEST-PCEHR_24	8003 6067 8912 9891	[View Patient Summary]
LAM, BERNARD	13/01/1972	W5::B4	TEST-IHI_4	8003 6081 6670 8479	[View Patient Summary]

Showing 1 to 6 of 6 entries

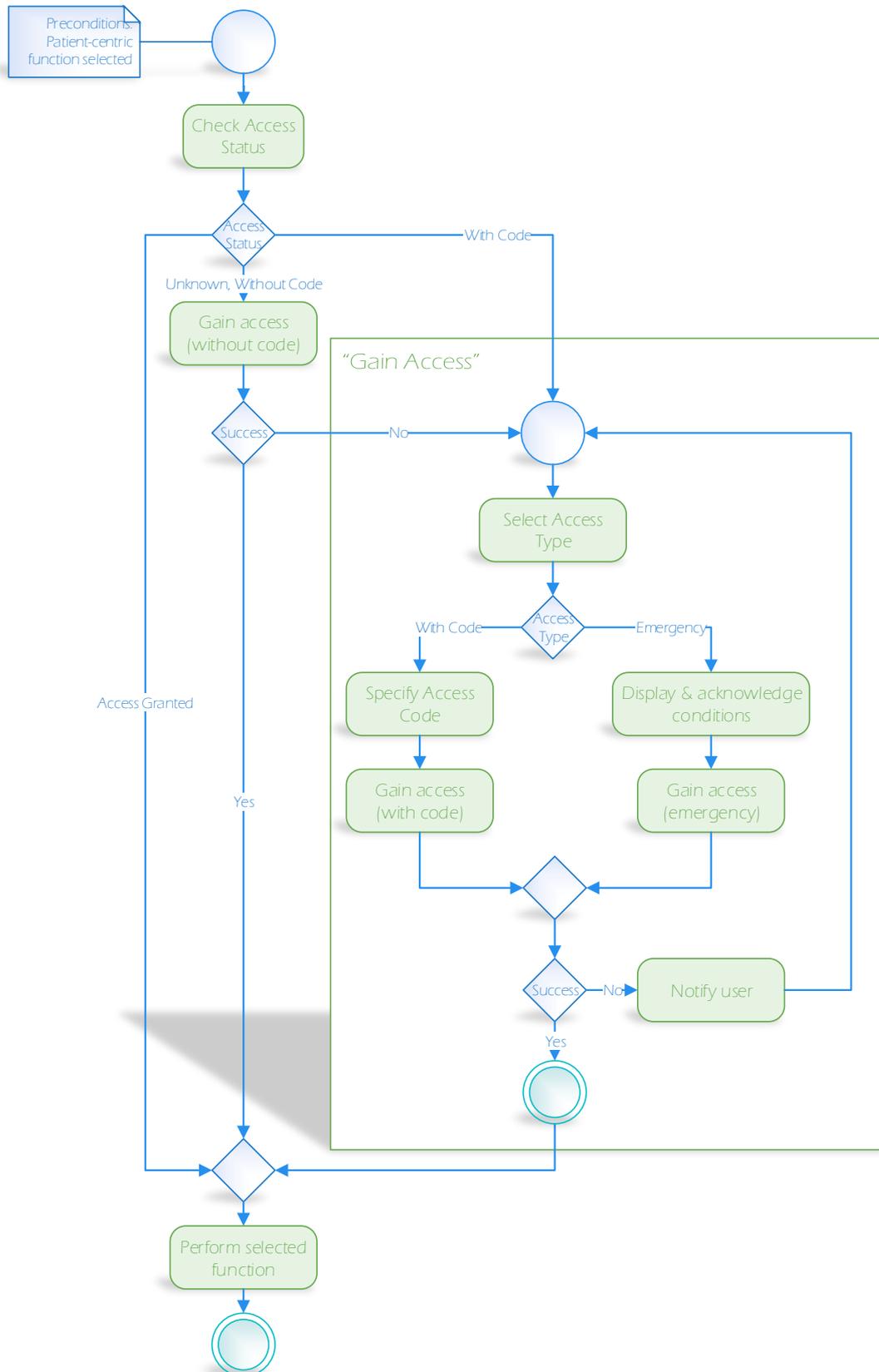
First Previous **1** Next Last

### **2.1.3 PCEHR Access Check & Gain Access**

The “PCEHR Access Check & Gain Access” capability enforces only appropriately authorised access to patient information available within the PCEHR. It does this by providing two key components:

- The “PCEHR Access Check” is used to protect any patient-centric function or capability where interaction with the PCEHR for that patient is required. It ensures that a check is made for the current status of access for the current HPI-O (via the selected hospital), and takes steps to prevent a user at that HPI-O from accessing information in a patient’s PCEHR without appropriate access if required.
- The “Gain Access” screen supports a user explicitly requesting access to a patient’s PCEHR, either through the “with code” or “emergency” gain access functions supported by the PCEHR.

The diagram below illustrates the logical activities required to support the PCEHR Access Check & Gain Access capability:



The key activities and decisions are:

Activity / Decision	Description	Notes
Check Access Status	Checks the status of access for the current HPI-O (via the selected hospital) to a patient's PCEHR.	Via eHISC-Core service PCEHRService.IsPcehrAdvertised
Access Status = "Access Granted"	The HPI-O already has access to the patient's PCEHR, so proceed directly to the originally selected patient-centric function.	
Access Status = "Unknown" or "Without Code"	The access status is either unknown or the HPI-O does not already have access to the patient's PCEHR, but the PCEHR has indicated that access can be gained without code.	In either case, attempt to gain access without code.
Gain access (without code)	Automatically gain access to the patient's PCEHR without a code.	Via eHISC-Core service PCEHRService.GainAccessWithoutCode
Success	For gain access (without code). In the case of success, proceed to the originally selected patient-centric function. In the case of failure, redirect to the "Gain Access" container to attempt to explicitly gain access through another access mechanism.	
Access Status = "With Code"	The HPI-O does not already have access to the patient's PCEHR, but the PCEHR has indicated that access can be gained with a code if required.	
"Gain Access"	Logical container that is executed as part of the overall "PCEHR Access Check" when the patient's access status is "With Code", when access cannot be obtained automatically, or when a user explicitly navigates to the "Gain Access" screen.	
Select Access Type	Provides options for gaining access to the patient's PCEHR using "with code" or "emergency".	

Activity / Decision	Description	Notes
Access Type = "With Code"	The user chooses to enter an access code provided by the patient to gain access to their PCEHR.	Must conform to "CIS Connecting to the PCEHR System" conformance requirement 019048 "Ability to submit provider access consent codes (PACC or PACCX)"
Specify Access Code	The user enters the access code provided by the patient.	
Gain access (with code)	Gain access to the patient's PCEHR using the access code provided by the patient.	Via the eHISC-Core service PCEHRService.GainAccessWithCode
Access Type = "Emergency"	The user chooses to request emergency access to the patient's PCEHR.	Must conform to "CIS Connecting to the PCEHR System" conformance requirement 019116 "Conditions of emergency access"
Display & acknowledge conditions	Display the conditions specified as part of conformance requirement 019116 and ensure they are acknowledged by the user.	
Gain access (emergency)	Gain emergency access to the patient's PCEHR.	Via the eHISC-Core service PCEHRService.GainAccessEmergency
Success	<p>For gain access (with code) or gain access (emergency).</p> <p>In the case of success, proceed to the originally selected patient-centric function.</p> <p>In the case of failure, notify the user of the failure condition then redirect to the start of the "Gain Access" container to allow retry.</p>	

The annotated image below illustrates the functional design for the "Gain Access" screen accessed via the "PCEHR Access Check" function or the "Gain Access" button on the "Patient Summary" screen for a selected patient.

**Ability to navigate back to "Patient List" or "Patient Summary" screens**

**Title to be "Gain Access for <Patient Name>".**

**Section for gaining access "with code". Supports "CIS Connecting to the PCEHR System" conformance requirement 019048.**

**Explanatory text.**

**Field for entering access code.**

**Section for gaining "emergency" access.**

**Required conditions. Supports "CIS Connecting to the PCEHR System" conformance requirement 019116.**

**"I understand..." button acknowledges conditions and attempts to gain "emergency" access.**

**Display reason for being redirected (if relevant). Display error information (not shown).**

**"Submit Code" button attempts to gain access "with code" using the access code specified.**

**Upon successfully gaining access, automatically redirect to originally selected function or screen. Upon failure, redisplay screen including error information.**

## 2.1.4 Patient Summary

The annotated image below illustrates the functional design for the “Patient Summary” screen accessed via the “View Patient Summary” button on the “Patient List” screen for a selected patient.

**Annotations:**

- Ability to navigate back to “Patient List”.
- Title to be “Patient Summary for <Patient Name>”.
- Tabs or menus group each document type (and count of documents of that type) available through the patient’s PCEHR (asc alpha sort). Selecting an item displays documents of that document type. Refer to the “Document List” component. In addition, the “Prescription & Dispense View” item provides access to the Prescription Dispense View. Refer to the “Prescription Dispense View” component.
- “Gain Access” button provides access to “Gain Access” screen for selected patient.
- “Print” button (not shown) displays separate window containing a printable view. Only available when the “Prescription & Dispense View” tab is selected.

Service Start	Service End	Creation	Organisation	Author	Actions
17/05/2013	29/05/2013	14/06/2013	DHSITESTORGD6	Paul, McKee	
17/05/2013	29/05/2013	14/06/2013	DHSITESTORGD6	Paul, McKee	
17/05/2013	29/05/2013	14/06/2013	DHSITESTORGD9	McKee, Paul	
17/05/2013	29/05/2013	14/06/2013	DHSITESTORGD9	McKee, Paul	
15/05/2014	02/06/2014	24/05/2013	DHSITESTORGD9	Simon, Biber	
31/07/2012	08/08/2012	21/09/2012	DHS5670	Massey, Gordon	
31/07/2012	08/08/2012	20/09/2012	DHSITESTORGD9	Biber, Simon	
31/07/2012	08/08/2012	20/09/2012	DHS5670	Biber, Simon	
Service Start	Service End	Creation	Organisation	Author	Actions

Showing 1 to 8 of 8 entries

First Previous **1** Next Last

## 2.1.5 Document List

The annotated image below illustrates the functional design for the "Document List" component of the "Patient Summary" screen for a selected patient.

"From" date defaults to 24 months ago. "To" date defaults to today.

Require "From" and "To" dates to be selected then click View to retrieve the view for the specified dates.

Results to display: Creation Date, Organisation, Author. For Discharge Summary also display Service Start & End Date.

Results exclude Dispense & e-Prescription documents.

Summary of matching results.

Filtering based on partial match of contents of any text-based column in results.

"View Document" button displays "Document View" screen for selected document.

Sorting of results (asc / desc). Default sort: Creation Date desc.

Paging of results  
Page size: 10.

Service Start	Service End	Creation	Organisation	Author	Actions
17/05/2013	29/05/2013	14/06/2013	DHSITESTORGD6	Paul, McKee	
17/05/2013	29/05/2013	14/06/2013	DHSITESTORGD6	Paul, McKee	
17/05/2013	29/05/2013	14/06/2013	DHSITESTORGD9	McKee, Paul	
17/05/2013	29/05/2013	14/06/2013	DHSITESTORGD9	McKee, Paul	
15/05/2014	02/06/2014	24/05/2013	DHSITESTORGD9	Simon, Biber	
31/07/2012	08/08/2012	21/09/2012	DHS5670	Massey, Gordon	
31/07/2012	08/08/2012	20/09/2012	DHSITESTORGD9	Biber, Simon	
31/07/2012	08/08/2012	20/09/2012	DHS5670	Biber, Simon	
Service Start	Service End	Creation	Organisation	Author	Actions

Showing 1 to 8 of 8 entries

First Previous **1** Next Last

## 2.1.6 Prescription Dispense View

The annotated image below illustrates the functional design for the "Prescription Dispense View" component of the "Patient Summary" screen for a specific patient.

The screenshot shows the "Prescription and Dispense View" for patient JAKE F BERMAN. The interface includes a date range selector (From: 03/02/2010, To: 06/12/2013), a "View" button, and a "Group By" dropdown menu set to "PBS Item Code". A red error banner at the top states "An error was encountered". The main content area displays a table of prescriptions and dispenses for item code 2845R, with details for a 3-Nov-2012 prescription and its subsequent dispense. Below the table is an "ADMINISTRATIVE DETAILS" section with sub-sections for Patient, Author, and Clinical Document Details.

**Callouts and Annotations:**

- "From" date defaults to 24 months ago. "To" date defaults to today.
- Require "From" and "To" dates to be selected then click View to retrieve the view for the specified dates.
- Date selection allows dd/mm/yyyy text entry, or selection from a Date Picker control. Date Picker control allows the user to pick a year (navigating by decade) then a month and day.
- Drop-down selector refreshes the document to group by different field properties supported by NEHTA XSLT. These fields are "Prescription" (Default), "Generic Name", "PBS Item Code", and "Brand Name"
- Display warnings (if any) returned from
- Display prescription and dispense view contents as HTML generated from XML source using provided NEHTA XSLT & CSS.
- Clicking header rows expands and contract nested detail rows.
- Document links redirect the browser to view the requested document (require rewriting from NEHTA source).
- Ensure nested displayed view does not show any scrollbars (horizontal or vertical).
- Display date & time document was downloaded from PCEHR (not shown).
- View is printable, refer to "Print" button on "Patient Summary" screen.

## 2.1.7 Document View

The annotated image below illustrates the functional design for the "Document View" screen accessed via the "View Document" button in the "Document List" component for a selected document, or from the "document" link on the "Prescription Dispense View" component.

**Discharge Summary for DUNCAN, ALEXANDER**

Downloaded from the PCEHR System on 4-Feb-2014 9:58+10:30.

**Discharge Summary (Interim v0.3)**  
29 May 2013

ALEXANDER DUNCAN DoB 5 May 2009 (32y) SEX Male IHI 8003 6034 5679 9528 MRN TEST-CCA\_13

**START OF DOCUMENT**

**Queensland Health**  
 Author Paul McKee (Health Professionals nfd)  
 Phone (07) 4796 1111  
 Discharge Usual Residence/Other  
 To

**Event**  
 Details of stay

Department of Health and Human Services  
 Tasmania  
 Explore the possibilities

Share Print Close

Display as modal "pop-up" when a document is selected.

Title to be "<Document Class> for <Patient Name>".

Display document contents as HTML generated from XML source using provided NEHTA XSLT & CSS.

"Close" button closes modal pop-up.

"Print" button displays separate window containing a printable view of the document.

"Share" button provides URL for "Document View".

Display embedded images.

Link to included attachments (not shown).

Display date & time document was downloaded from PCEHR.

Display warnings associated with document if returned from PCEHR (not shown). For demographic mismatch warnings, format as (example): "This document and the local patient record have a Different Sex and Different DOB and Different Family Name".

## 2.1.8 Current Patient List

The annotated image below illustrates the functional design for the “Current Patients” screen accessed via the “Assisted Registration” menu item on the “Home” screen.

**Patients without a PCEHR**

**Hospital**  
Royal Chamonix Hospital

**Search** Type to search...

Name	Date of Birth	Location	IHI	Actions
BARR, Augustus	18/04/1998	TestWard2::	8003 6085 0004 3112	 
BATES, Layla	13/02/1968	TestWard1::	8003 6085 0004 2858	
BLACKWELL, Heather	19/05/1998	TestWard1::	8003 6083 3337 6531	 
COOK, Cilly	26/02/1997	TestWard1::	8003 6083 3337 6366	 
HAMPTON, Rick	21/12/1963	TestWard1::	8003 6083 3337 6309	
HARDY, Lindsay	27/02/1994	TestWard2::	8003 6086 6670 8979	
HINTON, Glynn	21/04/1993	TestWard2::	8003 6081 6670 8636	
MONTGOMERY, Alex	14/04/2006	TestWard1::	8003 6083 3337 6739	
PARKER, Winola	18/10/2004	W1:R3:B4	8003 6045 6877 7139	

Showing 1 to 9 of 9 entries

First Previous **1** Next Last

**Annotations:**

- Title to be “Patients without a PCEHR”.
- Filter to select hospital facility.
- Sorting of results (ascending and descending). Default sort: Name
- Results to display: Name, Date of Birth, Location (Ward : Room : Bed), IHI (groups of 4 digits)
- Results contain patients who have an active verified IHI but do not have a PCEHR.
- Filtering based on partial match of contents of any text-based column in results.
- “Register” button displays “Adult Patient Registration” screen for selected patient.
- “Register as Dependant” button displays “Dependant Patient Registration” screen for selected patient.
- Paging of results. Page

## 2.1.9 Adult Patient Registration

The annotated image below illustrates the functional design for the "Adult Patient Registration" screen accessed via the "Register" button on the "Current Patients" screen for a selected patient.

**Title to be "PCEHR Assisted Registration".**

**Display the name of the currently selected**

**Displays the selected patient's details: Name, sex, date of birth, Medicare card number or DVA File Number.**

**Allows selection of which information will be accessible in the PCEHR.**

**Allows selection of the identity verification method used.**

**Allow selection of the indigenous status of the patient.**

**PCEHR Assisted Registration**

**Registering Hospital**  
**Hospital**  
 Flinders Medical Centre

**Applicant's Details**

**Family Name \***  
 BATES

**Given Name \***  
 Layla

**Sex**  
 Female

**Date of Birth \***  
 13/02/1968

**Medicare Card Number**  
 2950724051

**Is the individual of Aboriginal or Torres Strait Islander origin? \***

- No
- Yes, Aboriginal
- Yes, Torres Strait Islander
- Yes, Aboriginal and Torres Strait Islander
- Not Stated

**Accessing Medicare Information via PCEHR (Optional)**

Medicare information will not be accessible via the PCEHR, **UNLESS** the individual chooses the following:

- All Medicare Information will be available

**OR**, only the following types of Medicare information which the individual nominates will be accessible via the PCEHR:

- Medicare Benefits Schedule (MBS)
  - AND details of any past claims for Medicare Benefits
- Pharmaceutical Benefits Scheme (PBS)
  - AND details of any past claims for Pharmaceutical
- Australian Organ Donor Register (AODR)
- Australian Childhood Immunisation Register (ACIR)

**Application Form and Assertions**

**Identity Verification Method \***

Please Select...

## Identity Verification Code Delivery

To access the individual's eHealth record online, the individual will need an Identity Verification Code (IVC). No IVC will be issued during registration UNLESS the individual chooses ONE of the following options to select their preferred method for receiving the IVC. The user/operator is responsible for ensuring the accuracy of IVC delivery address submitted via the application.

Allows the entry of the IVC code delivery method for the patient.

- Display the IVC
- Send the IVC by SMS to:
- Send the IVC by Email to:
- Do not retrieve the IVC

Collection of the patient's acceptance of the terms and conditions.

## Apply to Register

- The individual declares that the information in this application is correct and any supporting evidence submitted by the individual is correct. The individual consents to records containing their health information being uploaded to the eHealth record system by registered healthcare provider organisations involved in the individual's care, subject to any express advice the individual gives to their healthcare providers not to upload a particular record, a specified class of records, or any records.

Send the PCEHR registration to eHISC for processing.

[Submit Application](#)

## 2.1.10 Dependant Patient Registration

The annotated image below illustrates the functional design for the "Dependant Patient Registration" screen accessed via the "Register as Dependant" button on the "Current Patients" screen for a selected patient.

Title to be "PCEHR Assisted Registration (Dependant)".


**PCEHR Assisted Registration (Dependant)**

---

Display the name of the currently selected

**Registering Hospital**

**Hospital**  
Royal Chamonix Hospital

---

Display the selected patient's details:  
Name, sex, date of birth, Medicare card number.

**Applicant's Details**

<p><b>Family Name *</b> BARR</p> <p><b>Given Name *</b> Augustus</p> <p><b>Sex</b> Male</p> <p><b>Date of Birth *</b> 18/04/1998</p>	<p><b>Medicare Card Number</b> 2950736481</p> <p><b>Is the individual of Aboriginal or Torres Strait Islander origin? *</b></p> <p><input type="radio"/> No</p> <p><input type="radio"/> Yes, Aboriginal</p> <p><input type="radio"/> Yes, Torres Strait Islander</p> <p><input type="radio"/> Yes, Aboriginal and Torres Strait Islander</p> <p><input type="radio"/> Not Stated</p>
--	---

Allow selection of the indigenous status of the patient.

---

Allow entry of the authorised representative's family name, given name, sex and date of birth. The representative must be at least 14 years older than the dependant.

**Parent or Legal Guardian Representative**

<p><b>Family Name *</b> <input type="text" value="Family Name"/></p> <p><b>Given Name *</b> <input type="text" value="Given Name"/></p> <p><b>Sex *</b> Please Select... ▼</p> <p><b>Date of Birth *</b> <input type="text" value=""/></p>	<p><b>Individual Identifier *</b></p> <p><b>Medicare Card Number</b></p> <div style="display: flex; justify-content: space-between;"> <input style="width: 40%; height: 20px;" type="text"/> <input style="width: 40%; height: 20px;" type="text"/> </div>
---	--

Allow entry of the authorised representative's Medicare card number and IRN. The Medicare card number must be the same as the dependant's.

### Accessing Medicare Information via PCEHR (Optional)

Allow selection of which information will be accessible in the new PCEHR.

Medicare information will not be accessible via the PCEHR, **UNLESS** the individual chooses the following:

All Medicare Information will be available

**OR**, only the following types of Medicare information which the individual nominates will be accessible via the PCEHR:

- Medicare Benefits Schedule (MBS)
  - AND details of any past claims for Medicare Benefits
- Pharmaceutical Benefits Scheme (PBS)
  - AND details of any past claims for Pharmaceutical
- Australian Organ Donor Register (AODR)
- Australian Childhood Immunisation Register (ACIR)

### Application Form and Assertions

Allow selection of the identity verification method used.

Identity Verification Method \*

Please Select...

### Identity Verification Code Delivery

Allow the entry of a delivery method for an IVC that the authorised representative can use to access the dependant's PCEHR online.

To access the dependant's eHealth record online, the authorised representative will need an Identity Verification Code (IVC). No IVC will be issued during registration **UNLESS** the authorised representative chooses **ONE** of the following options to select their preferred method for receiving the IVC. The user/operator is responsible for ensuring the accuracy of IVC delivery address submitted via the application.

Display the IVC

Send the IVC by SMS to:

Send the IVC by Email to:

Do not retrieve the IVC

Collect the authorised representative's declaration of parental responsibility and consent for the dependant's health information to be uploaded to the PCEHR.

### Apply to Register

The authorised representative declares that the information in this application is correct and any supporting evidence submitted by the authorised representative is correct.

The authorised representative declares that they have parental responsibility for the dependant and would like the System Operator to use the fact that they both appear on the same Medicare card as evidence of this relationship.

The authorised representative consents to records containing the dependant's health information being uploaded to the eHealth record system by registered healthcare provider organisations involved in the dependant's care, subject to any express advice the dependant or their authorised representatives give to their healthcare providers not to upload a particular record, a specified class of records, or any records.

Send the PCEHR registration to eHISC for processing.

Submit Application

## 2.1.11 New Applicant Registration

The annotated image below illustrates the functional design for the "New Applicant" screen accessed via the "New Applicant" button on the "Home" screen. This screen is based on the "Adult Patient Registration" screen with additional fields as required.

Title to be "PCEHR Assisted Registration".



### Registering Hospital

Hospital \*

### Applicant's Details

Family Name \*

Given Name \*

Sex \*

Date of Birth \*

Is the individual of Aboriginal or Torres Strait Islander origin? \*

No  
 Yes, Aboriginal  
 Yes, Torres Strait Islander  
 Yes, Aboriginal and Torres Strait Islander  
 Not Stated

### Individual Identifier \*

Medicare Card Number

DVA File Number

### Accessing Medicare Information via PCEHR (Optional)

Medicare information will not be accessible via the PCEHR, **UNLESS** the individual chooses the following:

All Medicare Information will be available

**OR**, only the following types of Medicare information which the individual nominates will be accessible via the PCEHR:

Medicare Benefits Schedule (MBS)  
 AND details of any past claims for Medicare Benefits  
 Pharmaceutical Benefits Scheme (PBS)  
 AND details of any past claims for Pharmaceutical  
 Australian Organ Donor Register (AODR)  
 Australian Childhood Immunisation Register (ACIR)

Allows selection of the hospital where the person is being registered.

Collection of the person's details: Name, Sex, Date of Birth, Medicare Number with IRN or DVA file number.

Allow selection of the indigenous status of the person.

Allow selection of which information will be accessible in the new PCEHR.

## Application Form and Assertions

Allows selection of the identity verification method used.

### Identity Verification Method \*

Please Select...

## Identity Verification Code Delivery

To access the individual's eHealth record online, the individual will need an Identity Verification Code (IVC). No IVC will be issued during registration UNLESS the individual chooses ONE of the following options to select their preferred method for receiving the IVC. The user/operator is responsible for ensuring the accuracy of IVC delivery address submitted via the application.

Allows the entry of the IVC code delivery method for the person.

Display the IVC

Send the IVC by SMS to:

Send the IVC by Email to:

Do not retrieve the IVC

Collection of the person's acceptance of the terms and conditions and consent for their health information to be uploaded to the PCEHR.

## Apply to Register

The individual declares that the information in this application is correct and any supporting evidence submitted by the individual is correct. The individual consents to records containing their health information being uploaded to the eHealth record system by registered healthcare provider organisations involved in the individual's care, subject to any express advice the individual gives to their healthcare providers not to upload a particular record, a specified class of records, or any records.

Send the PCEHR registration to eHISC for processing.

## 2.1.12 New Dependant Registration

The annotated image below illustrates the functional design for the "New Dependant Registration" screen accessed via the "New Dependant" button on the "Home" screen.

**Title to be "PCEHR Assisted Registration (Dependant)".**

**Allows selection of the hospital where the person is being registered.**

**Collection of the dependant's details: Family Name, Given Name, Sex and Date of Birth.**

**Allow selection of the indigenous status of the dependant.**

**Allow entry of the dependant's Medicare card number and IRN. The Medicare card number must be the same as the authorised**

**PCEHR Assisted Registration (Dependant)**

**Registering Hospital**

**Hospital \***  
Please Select

**Applicant's Details**

**Family Name \***  
Family Name

**Given Name \***  
Given Name

**Sex \***  
Please Select...

**Date of Birth \***

**Is the individual of Aboriginal or Torres Strait Islander origin? \***

- No
- Yes, Aboriginal
- Yes, Torres Strait Islander
- Yes, Aboriginal and Torres Strait Islander
- Not Stated

**Individual Identifier \***

**Medicare Card Number**

## Parent or Legal Guardian Representative

Allow entry of the authorised representative's family name, given name, sex and date of birth. The representative must be at least 14 years older than the dependant.

Family Name \*

Given Name \*

Sex \*

Please Select...

Date of Birth \*



Individual Identifier \*

Medicare Card Number

Allow entry of the authorised representative's Medicare card number and IRN. The Medicare card number must be the same as the dependant's.

## Accessing Medicare Information via PCEHR (Optional)

Allow selection of which information will be accessible in the new PCEHR.

Medicare information will not be accessible via the PCEHR, **UNLESS** the individual chooses the following:

All Medicare Information will be available

**OR**, only the following types of Medicare information which the individual nominates will be accessible via the PCEHR:

- Medicare Benefits Schedule (MBS)
  - AND details of any past claims for Medicare Benefits
- Pharmaceutical Benefits Scheme (PBS)
  - AND details of any past claims for Pharmaceutical
- Australian Organ Donor Register (AODR)
- Australian Childhood Immunisation Register (ACIR)

## Application Form and Assertions

Allow selection of the identity verification method used.

Identity Verification Method \*

Please Select...

## Identity Verification Code Delivery

To access the dependant's eHealth record online, the authorised representative will need an Identity Verification Code (IVC). No IVC will be issued during registration UNLESS the authorised representative chooses ONE of the following options to select their preferred method for receiving the IVC. The user/operator is responsible for ensuring the accuracy of IVC delivery address submitted via the application.

- Display the IVC
- Send the IVC by SMS to:
- Send the IVC by Email to:
- Do not retrieve the IVC

Allow the entry of a delivery method for an IVC that the authorised representative can use to access the dependant's PCEHR online.

Collect the authorised representative's declaration of parental responsibility and consent for the dependant's health information to be uploaded to the PCEHR.

## Apply to Register

- The authorised representative declares that the information in this application is correct and any supporting evidence submitted by the authorised representative is correct.

The authorised representative declares that they have parental responsibility for the dependant and would like the System Operator to use the fact that they both appear on the same Medicare card as evidence of this relationship.

The authorised representative consents to records containing the dependant's health information being uploaded to the eHealth record system by registered healthcare provider organisations involved in the dependant's care, subject to any express advice the dependant or their authorised representatives give to their healthcare providers not to upload a particular record, a specified class of records, or any records.

**Submit Application**

Send the PCEHR registration to eHISC for processing.

### 2.1.13 Registration Response

For a successful response the “Registration Response” screen will display.

The screenshot shows the 'PCEHR Assisted Registration' header with a checkmark icon. Below it is the title 'PCEHR Registration Successful'. A yellow callout box on the left points to the title and contains the text 'Confirmation of successful registration.'. Below the title, the text reads 'The PCEHR Assisted Registration was successful.' and 'Your IVC code is **PnfQ93D** and it expires on **16/01/2014**'. A second yellow callout box on the right points to the IVC code and contains the text 'IVC code for the patient if requested to be displayed.'

For an unsuccessful registration an error message will display:

The screenshot shows a red error message box containing the text: '• Medicare Number must be a valid Medicare Card Number.'. A yellow callout box on the left points to the error message and contains the text 'Displays the reason for the unsuccessful registration.'

## 2.1.14 Patients Without IHI

### 2.1.14.1 Description

'Patients Without IHI' is a data integrity function allowing users to list patients who are unexpectedly missing an IHI and currently an inpatient at, or recently discharged from, a selected hospital. A report of these patients can subsequently be generated for manual investigation.

### 2.1.14.2 Process Overview

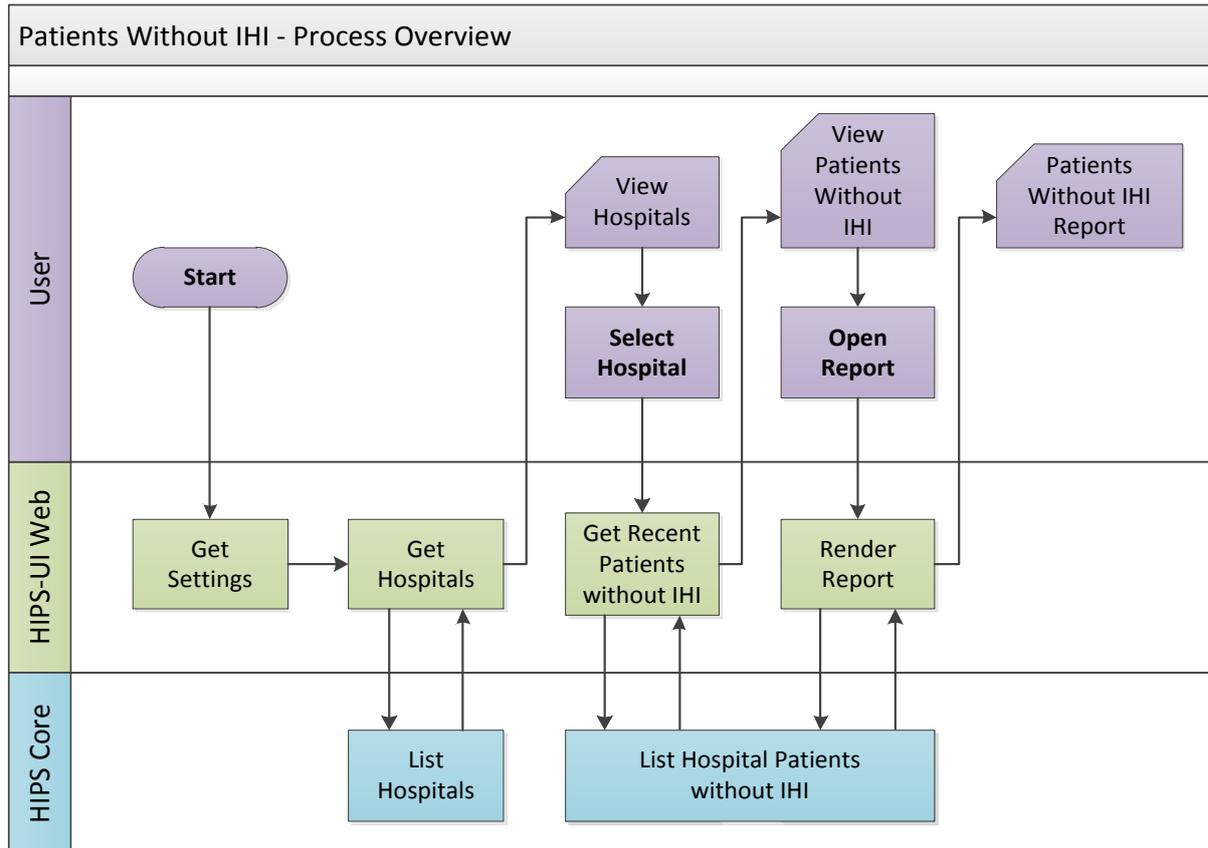


Figure 1 – Patients Without IHI – Process Overview

### 2.1.14.3 Process Detail

Activity / Decision	Description	Detail / Notes
Prerequisites	User logged in to the eHISC-UI Web application with appropriate security access.	Valid security details are required to login.
Start	User requests the 'Patients Without IHI' page.	Located under Data Integrity > Patients Without IHI.
Get Settings	eHISC-UI Web loads configuration settings.	Gets eHISC-UI Web configuration settings from the <i>Settings</i> table of the <i>HipsWebDataStore</i> database. Retrieves from cache if present and stores in cache after retrieval.
Get Hospitals	eHISC-UI Web gets a list of all hospitals in eHISC that are enabled for web administration.	Gets a list of all hospitals from the <i>ListHospitals</i> method of the eHISC <i>ReferenceService</i> web service. Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Filters the hospital list to only include hospitals that have a code in the <i>DefaultHospitalCodeSystem</i> code system. Retrieves from cache if present and stores in cache after retrieval.
List Hospitals	eHISC Core returns a list of all hospitals in eHISC.	Represents the <i>ListHospitals</i> method of the <i>ReferenceService</i> web service. Returns all <i>Hospitals</i> in eHISC. <i>Hospital</i> records include at least the following information: <ul style="list-style-type: none"> <li>• Hospital Name</li> <li>• Hospital ID</li> <li>• HPI-O</li> <li>• HPI-O Name</li> <li>• Hospital Codes and Code Systems</li> </ul>
View Hospitals	User receives a hospital selection screen.	See <a href="#">View Hospitals</a> .
Select Hospital	User requests the 'Patients Without IHI' page for a selected hospital.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> </ul>

Activity / Decision	Description	Detail / Notes
Get Recent Patients without IHI	eHISC-UI Web gets a list of patients unexpectedly missing an IHI who are currently an inpatient at, or recently discharged from, the selected hospital.	<p>Refers to loaded configuration settings to determine PatientsWithoutIhiDaysDischarged and DefaultHospitalCodeSystem.</p> <p>Gets a list of patients from the <i>ListPatientsWithoutIhi</i> method of the eHISC <i>PcehrService</i> web service using:</p> <ul style="list-style-type: none"> <li>• The Selected Hospital (Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• The <i>PatientsWithoutIhiDaysDicharged</i> value to determine how many days of recently discharged patients are returned</li> </ul> <p>Retrieves from cache if present and stores in cache after retrieval.</p>
List Hospital Patients without IHI	eHISC Core returns a list of patients unexpectedly missing an IHI currently at, or recently discharged from, the specified hospital.	<p>Represents the ListPatientsWithoutIhi method of the PcehrService web service.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• Hospital Code and Code System</li> <li>• Discharge Days number indicating how many days into the past to include discharged patients from</li> </ul> <p>Resolves the HospitalId for the provided hospital details.</p> <p>Determines the MinimumDischargeDate by subtracting the provided Discharge Days from the current date and time.</p> <p>Returns patient data for each HospitalPatient in eHISC who meets the following criteria:</p> <ul style="list-style-type: none"> <li>• Associated with the Identified Hospital <ul style="list-style-type: none"> <li>◦ HospitalId matches the provided HospitalId.</li> </ul> </li> <li>• No valid IHI assigned <ul style="list-style-type: none"> <li>◦ PatientMaster/PatientMasterIhi/Ihi field is null or empty.</li> </ul> </li> <li>• IHI Status is not Service Unavailable <ul style="list-style-type: none"> <li>◦ PatientMaster/PatientMasterIhi/IhiStatusId is either null or a value other than '103'</li> </ul> </li> <li>• Currently inpatient at the selected hospital or discharged from the hospital within a configured number of days</li> </ul>

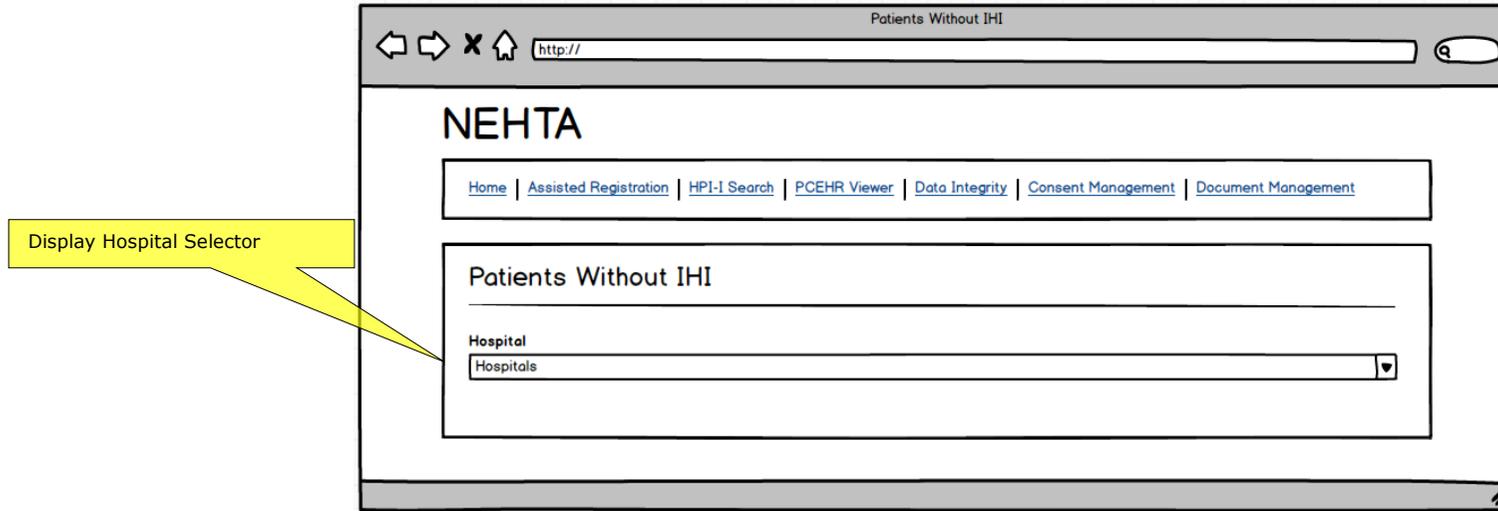
Activity / Decision	Description	Detail / Notes
		<ul style="list-style-type: none"> <li>○ The most recent Episode for the HospitalPatient has a DischargeDate that is either null or after the MinimumDischargeDate.</li> <li>• Aged over 1 month old               <ul style="list-style-type: none"> <li>○ PatientMaster/DateOfBirth is more than one month ago (e.g. before 1/2/2014 12:23:00 if now is 1/3/2014 12:23:00).</li> </ul> </li> <li>• Medicare Number is not in the eHISC Medicare Number Exclusions list               <ul style="list-style-type: none"> <li>○ PatientMaster/MedicareNumber is not present in the MedicareNumber field of the MedicareExclusion table.</li> </ul> </li> <li>• Most recent episode has not had a completed IHI investigation               <ul style="list-style-type: none"> <li>○ The most recent Episode for the HospitalPatient does not have a true IhiInvestigationComplete value.</li> </ul> </li> </ul> <p>Patient data to include the following information (as available):</p> <ul style="list-style-type: none"> <li>• Patient Name</li> <li>• Date of Birth</li> <li>• Sex</li> <li>• MRN</li> <li>• Medicare Card Number and IRN</li> <li>• DVA File Number</li> <li>• Location (Ward, Room, and Bed) of the patient’s most recent episode at the selected hospital</li> </ul>
View Patients Without IHI	User receives a screen displaying the Patients Without IHI data for the selected hospital.	See <a href="#">View Patients Without IHI</a> .
Open Report	User requests the ‘Patients Without IHI’ report for a selected hospital.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> </ul>

Activity / Decision	Description	Detail / Notes
Render Report	Report display for printing the 'Patients Without IHI'.	The report will open as a new window and display the data without pagination (thus a continuous page), the user will then be able to print the report using the standard print functionality of the web browser.
View Patients Without IHI Report	User receives a report displaying the requested Patients Without IHI data.	See <a href="#">View Patients Without IHI</a> .

## 2.1.14.4 Web User Interfaces

### 2.1.14.4.1 View Hospitals

View Hospitals screen allows the user to select a hospital to find patients without an IHI.



### 2.1.14.4.2 View Patients Without IHI

View Patients Without IHI Report a sortable list of the current and recent patients at a selected hospital who do not have an IHI (and are expected to have one).

The screenshot shows a web browser window titled "Patients Without IHI". The page header includes the NEHTA logo and a navigation menu with links: Home, Assisted Registration, HPI-1 Search, PCEHR Viewer, Data Integrity, Consent Management, and Document Management. Below the header is a "Patients Without IHI" section containing a "Hospital" selector dropdown menu (currently set to "Hospitals"), a search bar, and a table of patient records. The table has columns for Name, Date of Birth, Sex, MRN, Medicare Number, DVA File Number, and Location. Below the table, it says "Showing 1 to 10 of 33 entries" and includes a pagination control with buttons for "First", "Prev", "1", "Next", and "Last".

**Data to display (as available):**

- Name
- Date of Birth
- Sex
- MRN
- Medicare Number
- DVA File Number
- Location (Ward:Room:Bed) of current / most recent episode at the selected hospital.

**Errors and feedback to be displayed on top of page.**

**Hospital Selector to change hospital.**

**Search bar to filter across all columns (except actions)**

**Sortable columns. Default sort Name ASC.**

**Summary of matching results.**

**Paging of results  
Page size: 10.**

Name	Date of Birth	Sex	MRN	Medicare Number	DVA File Number	Location
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:
SMITH, Andrew	1/4/1990	Male	56ASQ	7734123412 (1)		Ward 2::
SQUIRE, Lily	1/2/1960	Female	SQ123L		NX111111	W1R2:Bed3
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:
SMITH, Andrew	1/4/1990	Male	56ASQ	7734123412 (1)		Ward 2::
SQUIRE, Lily	1/2/1960	Female	SQ123L		NX111111	W1R2:Bed3
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:
SMITH, Andrew	1/4/1990	Male	56ASQ	7734123412 (1)		Ward 2::
SQUIRE, Lily	1/2/1960	Female	SQ123L		NX111111	W1R2:Bed3
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:

### 2.1.14.4.3 View Patients Without IHI Report

View Patients Without IHI Report presents a report of the current and recent patients at a selected hospital who do not have an IHI (and are expected to have one).

## NEHTA

### Report - Patients Without IHI

**Hospital:** Royal Chamonix Hospital

Name	Date of Birth	Sex	MRN	Medicare Number	DVA File Number	Location
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:
SMITH, Andrew	1/4/1990	Male	56ASQ	7734123412 (1)		Ward 2::
SQUIRE, Lily	1/2/1960	Female	SQ123L		NX111111	W1:R2:Bed3
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:
SMITH, Andrew	1/4/1990	Male	56ASQ	7734123412 (1)		Ward 2::
SQUIRE, Lily	1/2/1960	Female	SQ123L		NX111111	W1:R2:Bed3
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:
SMITH, Andrew	1/4/1990	Male	56ASQ	7734123412 (1)		Ward 2::
SQUIRE, Lily	1/2/1960	Female	SQ123L		NX111111	W1:R2:Bed3
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:
SMITH, Andrew	1/4/1990	Male	56ASQ	7734123412 (1)		Ward 2::
SQUIRE, Lily	1/2/1960	Female	SQ123L		NX111111	W1:R2:Bed3
JONES, Betty	2/3/1980	Female	JONES123	5534123412 (1)		Ward 3:Room 4:

Page 1 of 3 Printed on 12/05/2014 by msmith01 at Royal Chamonix Hospital

Display page number count and number of pages

Display printed datetime, user and Facility for audit.

## 2.1.15 Disclose Hidden PCEHR

### 2.1.15.1 Description

'Disclose Hidden PCEHR' is a consent management function allowing users to record explicit disclosure (or rescind disclosure) of a patient's PCEHR status to a specified healthcare provider organisation.

Some patients elect to keep their PCEHR hidden (not advertised) by default. Healthcare provider organisations that would like to access PCEHRs for these non-advertised patients (e.g. to upload a document) must have the PCEHR's existence disclosed by the patient.

The associated capacity to rescind disclosure is required for those circumstances where a patient changes their mind or a user operator makes a mistake.

Patients can disclose their PCEHR (or rescind disclosure) without an associated IHI or PCEHR in eHISC.

### 2.1.15.2 Process Overview

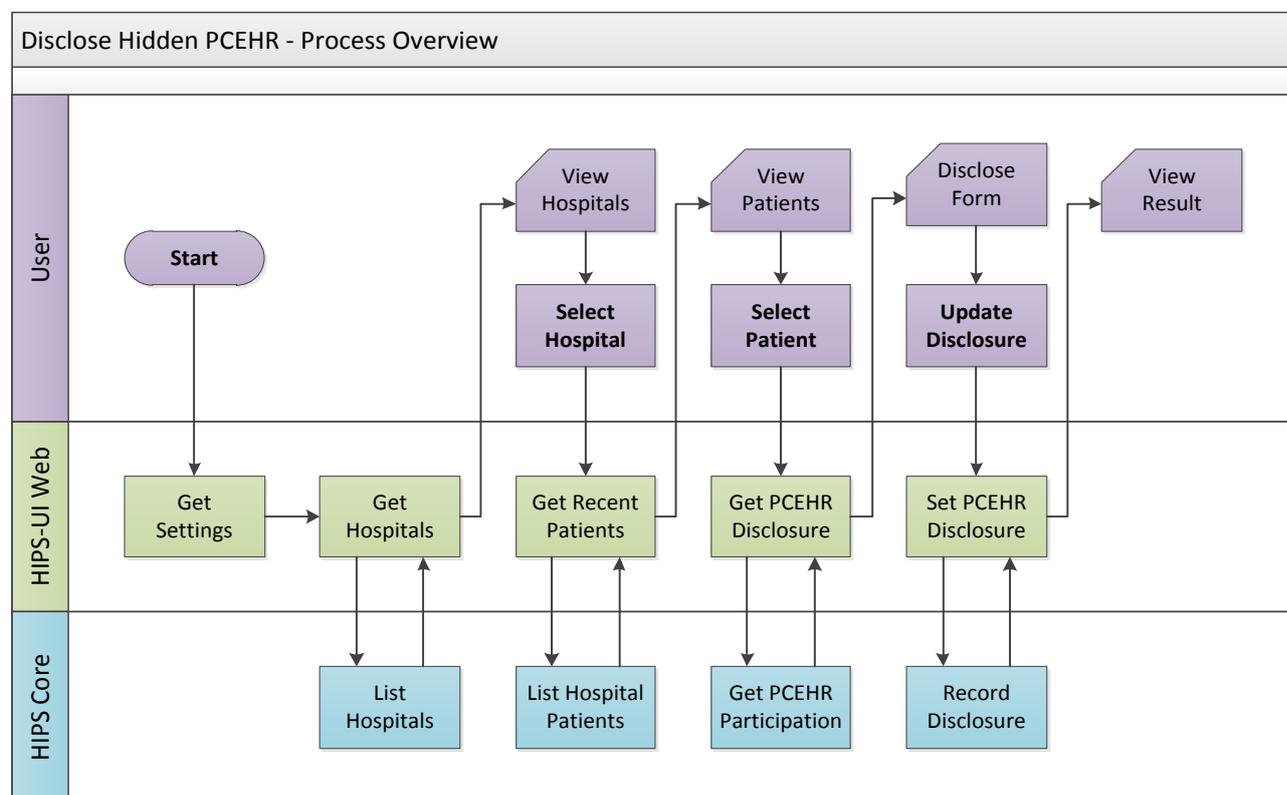


Figure 2 – Disclose Hidden PCEHR – Process Overview

### 2.1.15.3 Process Detail

Activity / Decision	Description	Detail / Notes
Prerequisites	User logged in to the eHISC-UI Web application with appropriate security access.	Valid security details are required to login.
Start	User requests the 'Disclose Hidden PCEHR' page.	Located under Consent Management > Disclose Hidden PCEHR.
Get Settings	eHISC-UI Web loads configuration settings.	Gets eHISC-UI Web configuration settings from the <i>Settings</i> table of the <i>HipsWebDataStore</i> database. Retrieves from cache if present and stores in cache after retrieval.
Get Hospitals	eHISC-UI Web gets a list of all hospitals in eHISC that are enabled for web administration.	Gets a list of all hospitals from the <i>ListHospitals</i> method of the eHISC <i>ReferenceService</i> web service. Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Filters the hospital list to only include hospitals that have a code in the <i>DefaultHospitalCodeSystem</i> code system. Retrieves from cache if present and stores in cache after retrieval.
List Hospitals	eHISC Core returns a list of all hospitals in eHISC.	Represents the <i>ListHospitals</i> method of the <i>ReferenceService</i> web service. Returns all <i>Hospitals</i> in eHISC. <i>Hospital</i> records include at least the following information: <ul style="list-style-type: none"> <li>• Hospital Name</li> <li>• Hospital ID</li> <li>• HPI-O</li> <li>• HPI-O Name</li> <li>• Hospital Codes and Code Systems</li> </ul>
View Hospitals	User receives a hospital selection screen.	See <a href="#">View Hospitals</a> .
Select Hospital	User requests the 'Disclose Hidden PCEHR' page for a selected hospital.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> </ul>

Activity / Decision	Description	Detail / Notes
Get Recent Patients	eHISC-UI Web gets a list of patients (IHI and PCEHR are not required) who are currently an inpatient at, or recently discharged from, the selected hospital.	<p>Refers to loaded configuration settings to determine <code>DiscloseHiddenPcehrDaysDischarged</code> and <code>DefaultHospitalCodeSystem</code>.</p> <p>Gets a list of patients from the <code>ListAllPatientsWithPcehrStatus</code> method of the eHISC <code>ConsentService</code> web service using:</p> <ul style="list-style-type: none"> <li>• The Selected Hospital (<code>Code</code>, <code>DefaultHospitalCodeSystem</code>)</li> <li>• The <code>DiscloseHiddenPcehrDaysDischarged</code> value to determine how many days of recently discharged patients are returned</li> </ul> <p>Results are not cached.</p>
List Hospital Patients	eHISC Core returns a list of all patients (IHI and PCEHR not required) currently at, or recently discharged from, the specified hospital. The patient list indicates the known PCEHR participation status for each patient.	<p>Represents the <code>ListAllPatientsWithPcehrStatus</code> method of the <code>ConsentService</code> web service.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• Hospital Code and Code System</li> <li>• Discharge Days number indicating how many days into the past to include discharged patients from</li> </ul> <p>Resolves the <code>HospitalId</code> for the provided hospital details.</p> <p>Determines the <code>MinimumDischargeDate</code> by subtracting the provided <code>Discharge Days</code> from the current date and time.</p> <p>Returns patient data for each <code>HospitalPatient</code> in eHISC who meets the following criteria:</p> <ul style="list-style-type: none"> <li>• Associated with the Identified Hospital <ul style="list-style-type: none"> <li>◦ <code>HospitalId</code> matches the provided <code>HospitalId</code>.</li> </ul> </li> <li>• Currently inpatient at the selected hospital or discharged from the hospital within a configured number of days <ul style="list-style-type: none"> <li>◦ The most recent <code>Episode</code> for the <code>HospitalPatient</code> has a <code>DischargeDate</code> that is either null or after the <code>MinimumDischargeDate</code>.</li> </ul> </li> </ul> <p>Patient data to include the following information (as available):</p> <ul style="list-style-type: none"> <li>• Patient Name</li> <li>• Date of Birth</li> </ul>

Activity / Decision	Description	Detail / Notes
		<ul style="list-style-type: none"> <li>• MRN</li> <li>• Location (Ward, Room, and Bed) of the patient’s most recent episode at the selected hospital</li> <li>• PCEHR Participation Status (NoValidIhi, PcehrNotAdvertised, PcehrAdvertised, RequestedUpload)</li> </ul>
View Patients	User receives a screen displaying the patient list for the selected hospital.	See <a href="#">View Patients</a> . PCEHR Participation Status is displayed as follows: <ul style="list-style-type: none"> <li>• “Not Found” for “NoValidIhi” or “PcehrNotAdvertised”</li> <li>• “Found” for “PcehrAdvertised”</li> <li>• “Disclosed” for “RequestedUpload”</li> </ul>
Select Patient	User selects a patient to change the PCEHR disclosure for.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> </ul>
Get PCEHR Disclosure	eHISC-UI Web gets the PCEHR Disclosure for the selected patient to determine if they have already disclosed their PCEHR.	Gets the PCEHR Disclosure Status for the selected patient using the <i>GetPatientDisclosureDetails</i> method of the eHISC <i>ConsentService</i> web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> </ul> Results are not cached.
Get PCEHR Disclosure	eHISC Core gets the PCEHR Disclosure Status and last audit note for the specified patient.	Represents the <i>GetPatientDisclosureDetails</i> method of the <i>ConsentService</i> web service. Returns the PCEHR Disclosure Status for the specified patient. Receives the following input: <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> </ul> Returns at least the following information: <ul style="list-style-type: none"> <li>• PCEHR Disclosure Status and latest audit note if they have been disclosed before.</li> </ul>

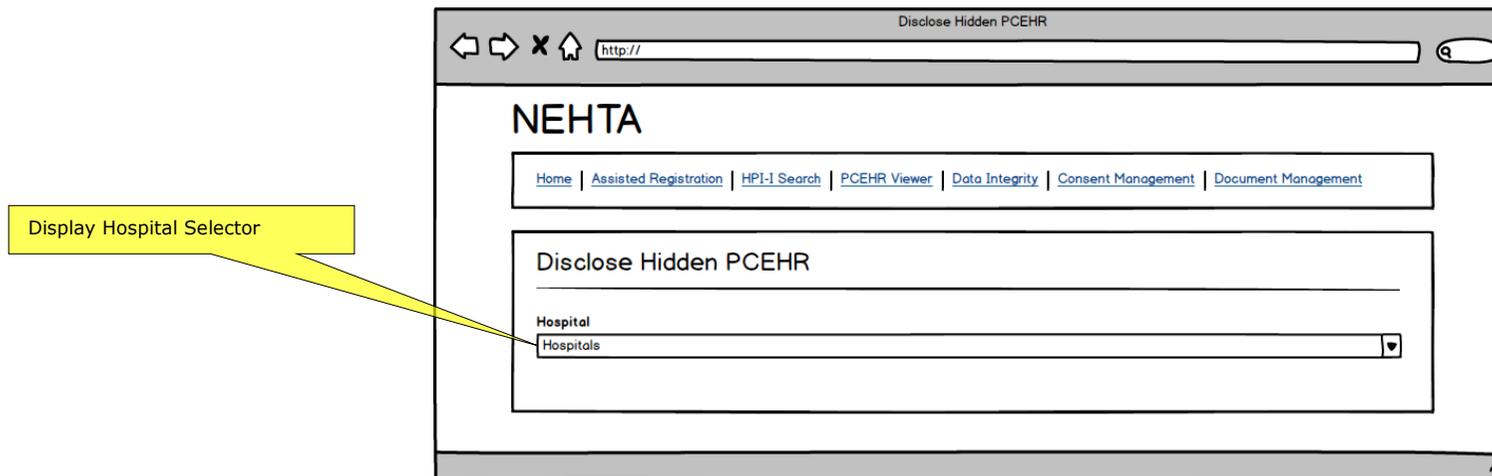
Activity / Decision	Description	Detail / Notes
Disclose Form	User receives the disclosure or rescind disclosure form as appropriate.	Patients who have not explicitly disclosed their PCEHR (status is 'NoValidIhi', 'PcehrNotAdvertised', or 'PcehrAdvertised') receive a form allowing them to disclose their PCEHR. This form requires a notes field and confirmation. Patients who have previously explicitly disclosed their PCEHR (status is 'RequestedUpload') receive a form allowing them to rescind their PCEHR disclosure. This form requires a notes field and confirmation.
Update Disclosure	User completes the Change Disclosure Form (either to Disclose or Rescind Disclosure) and submits the form.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• Notes</li> <li>• Confirmation of Disclosure or Rescind Disclosure</li> <li>• Intended Disclosure State (i.e. true to disclose, false to rescind)</li> </ul>
Set PCEHR Disclosure	eHISC-UI Web records the new disclosure value in eHISC.	Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Records the Patient's PCEHR Disclosure state (disclosed or rescinded) for the selected patient using the <i>RecordDisclosure</i> method of the eHISC <i>ConsentService</i> web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• Intended Disclosure State (i.e. true to disclose, false to rescind)</li> <li>• Notes converted to bytes using UTF8 encoding</li> </ul> Results are not cached.
Record Disclosure	eHISC Core records the new disclosure status.	Represents the <i>RecordDisclosure</i> method of the <i>ConsentService</i> web service. Updates the 'PcehrDisclosed' flag for the specified patient's <i>HealthProviderOrganisationPatient</i> record. Receives the following input: <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> <li>• Intended Disclosure State (i.e. true to disclose, false to rescind)</li> <li>• Audit Information (Notes as byte array)</li> </ul>

Activity / Decision	Description	Detail / Notes
View Result	The User receives a page (updated form) indicating the patient has now successfully disclosed or rescinded disclosure.	As list results are not cached, if the user returns to the list page they will see correct updated data about the patient's disclosure.

## 2.1.15.4 Web User Interfaces

### 2.1.15.4.1 View Hospitals

View Hospitals screen allows the user to select a hospital to find patients (with or without PCEHR or IHI) for the purposes of updating PCEHR disclosure.



### 2.1.15.4.2 View Patients

View Patients screen allows the user to select a patient to change PCEHR disclosure for, either by filtering current/recent patients or searching by MRN.

The screenshot shows a web browser window titled "Disclose Hidden PCEHR". The page header includes "NEHTA" and a navigation menu with links: Home, Assisted Registration, HPI-1 Search, PCEHR Viewer, Data Integrity, Consent Management, and Document Management. The main content area is titled "Disclose Hidden PCEHR" and contains a "Hospital" selector dropdown, a search bar, and a table of patient records. The table has columns for Name, Date of Birth, MRN, Location, PCEHR Status, and Actions. Below the table is a pagination control showing "Showing 1 to 10 of 33 entries" and buttons for "First", "Prev", "1", "Next", and "Last". At the bottom, there is a "Lookup by MRN:" section with an input field and a "Lookup" button.

**Data to display (as available):**

- Name
- Date of Birth
- MRN
- Location (Ward:Room:Bed) of current / most recent episode at the selected hospital.
- PCEHR Status for patient at the selected healthcare

**Data not cached so refreshing the page refreshes the data live.**

**Summary of matching results.**

**Errors and feedback to be displayed on top of page.**

**Hospital Selector to change hospital.**

**Search bar to filter across all columns (except actions)**

**Link to Disclose Form (either Disclose if patient PCEHR Status is Found/Not Found or Remove Disclosure if patient PCEHR Status is Disclosed).**

**Sortable columns. Default sort Name ASC.**

**Paging of results  
Page size: 10.**

**Lookup by MRN allows exact search on MRN across all time. If result found that patient is selected. Otherwise an error is displayed.**

Name	Date of Birth	MRN	Location	PCEHR Status	Actions
JONES, Betty	2/3/1980	JONES123	Ward 3 Room 4:	Found	<a href="#">Disclose</a>
SMITH, Andrew	1/4/1990	56ASQ	Ward 2:.	Not Found	<a href="#">Disclose</a>
SQUIRE, Lily	1/2/1960	SQ123L	W1R2.Bed3	Disclosed	<a href="#">Remove Disclosure</a>
JONES, Betty	2/3/1980	JONES123	Ward 3 Room 4:	Found	<a href="#">Disclose</a>
SMITH, Andrew	1/4/1990	56ASQ	Ward 2:.	Not Found	<a href="#">Disclose</a>
SQUIRE, Lily	1/2/1960	SQ123L	W1R2.Bed3	Disclosed	<a href="#">Remove Disclosure</a>
JONES, Betty	2/3/1980	JONES123	Ward 3 Room 4:	Found	<a href="#">Disclose</a>
SMITH, Andrew	1/4/1990	56ASQ	Ward 2:.	Not Found	<a href="#">Disclose</a>
SQUIRE, Lily	1/2/1960	SQ123L	W1R2.Bed3	Disclosed	<a href="#">Remove Disclosure</a>
JONES, Betty	2/3/1980	JONES123	Ward 3 Room 4:	Found	<a href="#">Disclose</a>

The Disclose PCEHR form allows users to disclose the existence of their PCEHR if they have not yet done so for the healthcare provider organisation of the selected hospital.

The screenshot shows a web browser window titled "Disclose PCEHR Existence" with the NEHTA logo at the top. A navigation bar contains links for Home, Assisted Registration, HPI-I Search, PCEHR Viewer, Data Integrity, Consent Management, and Document Management. The main form area is titled "Disclose PCEHR Existence" and contains the following fields:

- Patient:** SMITH, Jane (SJ123456)
- Date Of Birth:** 2/3/1980
- Hospital:** Royal NEHTA Hospital
- Location:** Ward 1Room2.Bed3
- Notes:** A large text input area.
- Confirm PCEHR Disclosure:** A checkbox with the text "Please confirm that the patient wishes to disclose their National eHealth Record (PCEHR)".
- Submit Button:** A button labeled "Disclose PCEHR".

Callout boxes provide the following details:

- Data to display (as available):** Name + (MRN), Date of Birth, Hospital, Location (Ward:Room:Bed) for current/most recent episode.
- Notes is required.** Maximum length 5000 characters.
- Confirmation required.** Points to the confirmation checkbox.
- "Disclose PCEHR" marks the patient as having disclosed their PCEHR to the healthcare provider organisation, Feedback of the success of this operation is displayed. Repeat submission is disabled until feedback is received and only permitted if the submission was unsuccessful.** Points to the submit button.
- Title to be "Disclose PCEHR Existence"** Points to the form title.
- Errors and feedback to be displayed on top of page.** Points to the top of the form area.
- Confirmation text and submit button to refer to "Disclose PCEHR"** Points to the confirmation checkbox and the submit button.

## **2.1.16 Withdraw Consent**

### **2.1.16.1 Description**

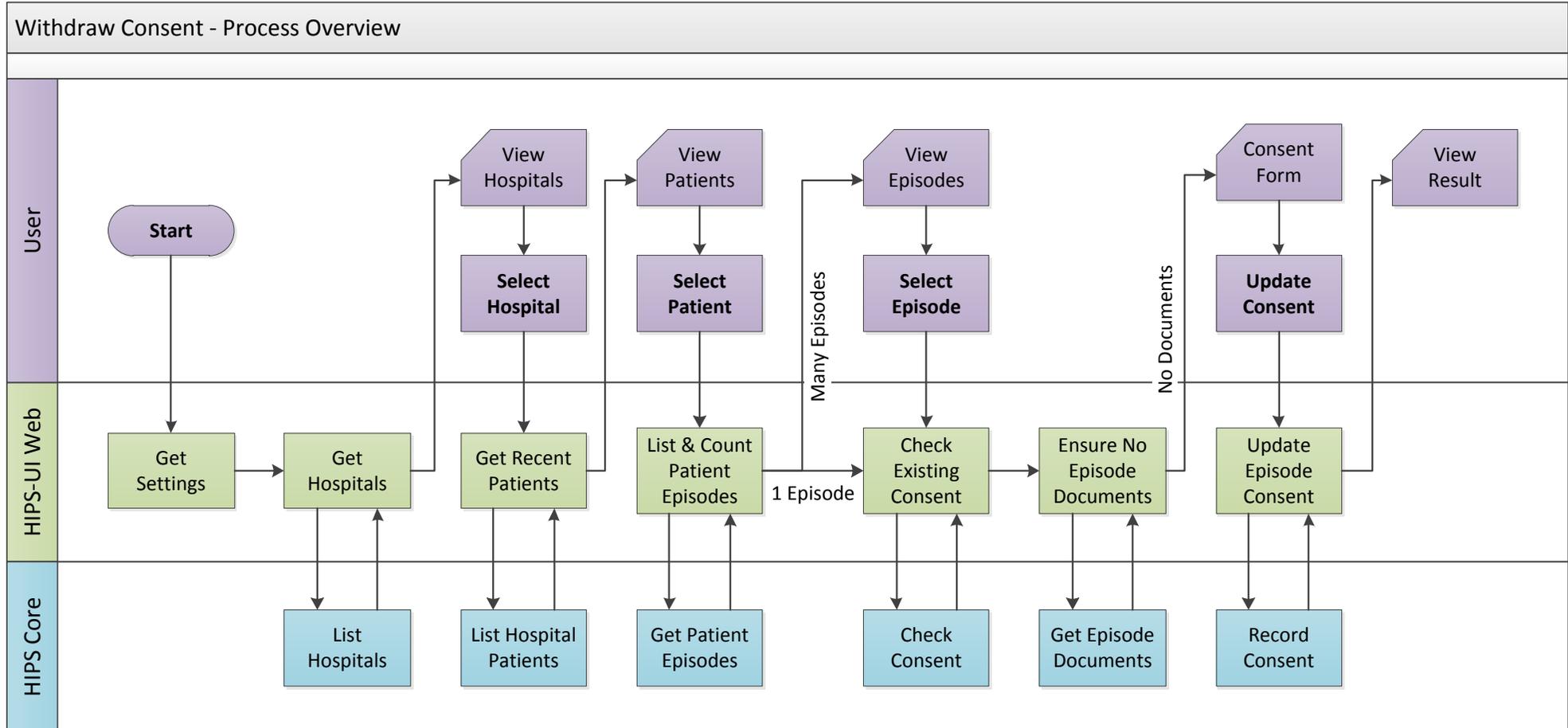
'Withdraw Consent' is a consent management function allowing users to record a patient's intention to withdraw document upload consent (or reinstate withdrawn consent) for documents relating to a single episode at a hospital. This prevents documents being uploaded for a specified episode for patients with an advertised or disclosed PCEHR.

Consent cannot be withdrawn if documents have already been uploaded until those documents are removed.

The associated capacity to reinstate withdrawn consent is required for those circumstances where a patient changes their mind or a user operator makes a mistake.

As patients can change the advertisement or disclosure of their PCEHR at any time, but may want to withdraw consent in advance, no associated PCEHR or IHI is required in eHISC to withdraw (or reinstate) consent.

### 2.1.16.2 Process Overview



### 2.1.16.3 Process Detail

Activity / Decision	Description	Detail / Notes
Prerequisites	User logged in to the eHISC-UI Web application with appropriate security access.	Valid security details are required to login.
Start	User requests the 'Withdraw Consent' page.	Located under Consent Management > Withdraw Consent
Get Settings	eHISC-UI Web loads configuration settings.	Gets eHISC-UI Web configuration settings from the <i>Settings</i> table of the <i>HipsWebDataStore</i> database. Retrieves from cache if present and stores in cache after retrieval.
Get Hospitals	eHISC-UI Web gets a list of all hospitals in eHISC that are enabled for web administration.	Gets a list of all hospitals from the <i>ListHospitals</i> method of the eHISC <i>ReferenceService</i> web service. Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Filters the hospital list to only include hospitals that have a code in the <i>DefaultHospitalCodeSystem</i> code system. Retrieves from cache if present and stores in cache after retrieval.
List Hospitals	eHISC Core returns a list of all hospitals in eHISC.	Represents the <i>ListHospitals</i> method of the <i>ReferenceService</i> web service. Returns all <i>Hospitals</i> in eHISC. <i>Hospital</i> records include at least the following information: <ul style="list-style-type: none"> <li>• Hospital Name</li> <li>• Hospital ID</li> <li>• HPI-O</li> <li>• HPI-O Name</li> <li>• Hospital Codes and Code Systems</li> </ul>
View Hospitals	User receives a hospital selection screen.	See <a href="#">View Hospitals</a> .
Select Hospital	User requests the 'Withdraw Consent' page for a selected hospital.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> </ul>

Activity / Decision	Description	Detail / Notes
Get Recent Patients	eHISC-UI Web gets a list of patients (IHI and PCEHR are not required) who are currently an inpatient at, or recently discharged from, the selected hospital.	<p>Refers to loaded configuration settings to determine <i>WithdrawConsentDaysDischarged</i> and <i>DefaultHospitalCodeSystem</i>.</p> <p>Gets a list of patients from the <i>ListAdmittedPatients</i> method of the eHISC <i>ConsentService</i> web service using:</p> <ul style="list-style-type: none"> <li>• The Selected Hospital (Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• The <i>WithdrawConsentDaysDischarged</i> value to determine how many days of recently discharged patients are returned</li> </ul> <p>Results are not cached.</p>
List Hospital Patients	eHISC Core returns a list of all patients (IHI and PCEHR not required) currently at, or recently discharged from, the specified hospital. The patient list indicates indication for each patient of whether consent has been withdrawn for the latest episode.	<p>Represents the <i>ListAdmittedPatients</i> method of the <i>ConsentService</i> web service.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• Hospital Code and Code System</li> <li>• Discharge Days number indicating how many days into the past to include discharged patients from</li> </ul> <p>Resolves the <i>HospitalId</i> for the provided hospital details.</p> <p>Determines the <i>MinimumDischargeDate</i> by subtracting the provided Discharge Days from the current date and time.</p> <p>Returns patient data for each <i>HospitalPatient</i> in eHISC who meets the following criteria:</p> <ul style="list-style-type: none"> <li>• Associated with the Identified Hospital <ul style="list-style-type: none"> <li>◦ <i>HospitalId</i> matches the provided <i>HospitalId</i>.</li> </ul> </li> <li>• Currently inpatient at the selected hospital or discharged from the hospital within a configured number of days <ul style="list-style-type: none"> <li>◦ The most recent <i>Episode</i> for the <i>HospitalPatient</i> has a <i>DischargeDate</i> that is either null or after the <i>MinimumDischargeDate</i>.</li> </ul> </li> </ul> <p>Patient data to include the following information (as available):</p> <ul style="list-style-type: none"> <li>• Patient Name</li> <li>• Date of Birth</li> <li>• MRN</li> </ul>

Activity / Decision	Description	Detail / Notes
		<ul style="list-style-type: none"> <li>Location (Ward, Room, and Bed) of the patient's most recent episode at the selected hospital</li> <li>Latest Episode's Consent Withdrawn (True/False)</li> </ul>
View Patients	User receives a screen displaying the patient list for the selected hospital.	See <a href="#">View Patients</a> .
Select Patient	User selects a patient to change the upload consent for.	User request includes the following field(s): <ul style="list-style-type: none"> <li>Hospital Code</li> <li>Patient MRN</li> </ul>
List & Count Patient Episodes	<p>eHISC-UI Web gets a list of all episodes (current and historical) at the current hospital for the specified patient.</p> <p>eHISC-UI Web determines whether episode selection is necessary by counting whether there is more than one episode for the patient at the hospital.</p>	<p>Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i>.</p> <p>Gets a list of patient episodes from the <i>ListPatientEpisodesInHospital</i> method of the eHISC <i>PatientService</i> web service using:</p> <ul style="list-style-type: none"> <li>The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> </ul> <p>Results are not cached.</p> <p>The eHISC-UI retrieves the number of episodes for the patient at the hospital from the <i>ListAdmittedPatients</i> response.</p> <p>If there is more than one episode an episode selection screen is presented ("View Episodes").</p> <p>Otherwise the current episode is assumed to be the episode to withdraw consent for and the (withdraw/reinstate) consent form is presented ("View Change Consent Form").</p>
Get Patient Episodes	eHISC Core gets all episodes (current and historical) for the specified patient and hospital.	<p>Represents the <i>ListPatientEpisodesInHospital</i> method of the <i>PatientService</i> web service.</p> <p>Returns all <i>Episode</i> records for the indicated patient and hospital.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>Patient MRN and associated Hospital Code and Code System</li> </ul> <p>Returns at least the following information:</p> <ul style="list-style-type: none"> <li>Admission Date/Time</li> <li>Admission Reason</li> <li>Responsible Provider</li> <li>Episode Consent Status (Unknown, NoConsentRecorded, WithdrewConsent)</li> </ul>

Activity / Decision	Description	Detail / Notes
View Episodes	User receives a screen displaying the patient's episodes at a hospital.	Requires more than one episode present (otherwise skips to Consent Form for the single episode). See <a href="#">View Episodes</a> . Consent is withdrawn if episode consent status is "WithdrewConsent", otherwise it is indicated as not withdrawn.
Select Episode	User selects a patient's episode to change the upload consent for.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• SourceSystemEpisodeId</li> </ul>
Check Existing Consent	eHISC-UI Web gets the upload consent for the selected patient episode to determine if they have already withdrawn upload consent.	Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Gets the upload consent for the selected patient using the <i>ListPatientEpisodesInHospital</i> method of the eHISC <i>PatientService</i> web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• Episode Admission Date/Time</li> </ul> Results are not cached.
Check Consent	eHISC Core gets the upload consent for the specified patient episode.	Represents the <i>ListPatientEpisodesInHospital</i> method of the <i>patientService</i> web service. Returns the upload consent for the specified patient episode. Receives the following input: <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> <li>• Episode Admission Date/Time</li> </ul> Returns at least the following information: <ul style="list-style-type: none"> <li>• Episode Consent Status (Unknown, NoConsentRecorded, WithdrewConsent)</li> </ul>
Ensure No Episode Documents	eHISC-UI Web gets a list of documents uploaded for the selected patient episode.	Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Gets the list of uploaded documents for the selected patient episode using the <i>ListUploadedDocuments</i> method of the eHISC <i>PcehrService</i> web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• Episode Admission Date/Time</li> </ul> Results are not cached.

Activity / Decision	Description	Detail / Notes
Get Episode Documents	eHISC Core gets the list of documents uploaded via eHISC to the PCEHR for the selected patient episode.	<p>Represents the <i>ListUploadedDocuments</i> method of the <i>PcehrService</i> web service.</p> <p>Returns a list of documents uploaded via eHISC to the PCEHR for the specified patient episode.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> <li>• Episode Admission Date/Time</li> </ul> <p>Returns at least the following information for each document associated with the episode:</p> <ul style="list-style-type: none"> <li>• Document ID</li> </ul>
Consent Form	User receives the withdraw or reinstate consent form as appropriate.	<p>Patients who have not withdrawn consent for the indicated episode (status is 'Unknown' or 'NoConsentRecorded') receive a form allowing them to withdraw consent. This form requires a notes field and confirmation.</p> <p>This form presents an error if documents have already been uploaded for the indicated episode that prevents withdrawing consent until those documents are removed. See <a href="#">Consent Form (Withdraw Consent)</a>.</p> <p>Patients who have previously withdrawn consent for the indicated episode (status is 'WithdrewConsent') receive a form allowing them to reinstate upload consent for the indicated episode. This form requires a notes field and confirmation.</p>
Update Consent	User completes the Change Consent Form (either to Withdraw or Reinstate Consent) and submits the form.	<p>User request includes the following field(s):</p> <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• Notes</li> <li>• Confirmation of Withdraw or Reinstate Consent</li> <li>• Intended Withdraw Consent State (i.e. true to withdraw, false to reinstate)</li> </ul>
Update Episode Consent	eHISC-UI Web records the new consent value in eHISC for the indicated episode.	<p>Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i>.</p> <p>Records the Patient's Withdraw Consent state (withdrawn or reinstated) for the selected patient episode using the <i>RecordConsent</i> method of the eHISC <i>ConsentService</i> web service using:</p> <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> </ul>

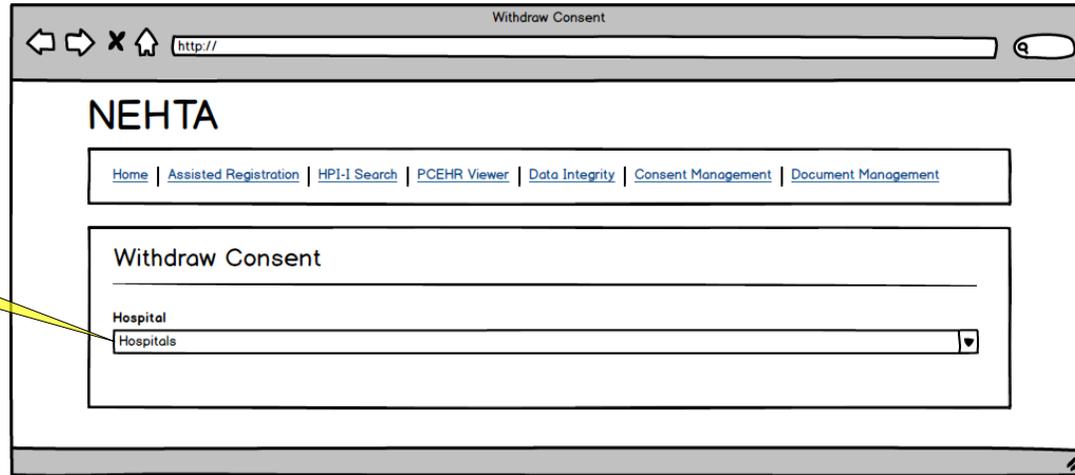
Activity / Decision	Description	Detail / Notes
		<ul style="list-style-type: none"> <li>• Intended Withdraw Consent State (i.e. true to withdraw, false to reinstate)</li> <li>• Notes converted to bytes using UTF8 encoding</li> </ul> <p>Results are not cached.</p>
Record Consent	eHISC Core records the new withdraw consent status for the indicated episode.	<p>Represents the <i>RecordConsent</i> method of the <i>ConsentService</i> web service.</p> <p>Updates the '<i>ConsentWithdrawn</i>' flag for the specified patient <i>Episode</i> record.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> <li>• Episode Admission Date/Time</li> <li>• Intended Withdraw Consent State (i.e. true to withdraw, false to reinstate)</li> <li>• Audit Information (Notes as byte array)</li> </ul>
View Result	The User receives an updated form indicating the patient has now successfully withdrawn or reinstated consent.	As list results are not cached, if the user returns to the list page they will see correct updated data about the patient's consent.

## 2.1.16.4 Web User Interfaces

### 2.1.16.4.1 View Hospitals

View Hospitals screen allows the user to select a hospital to find patients who need PCEHR document upload consent withdrawn or reinstated for an episode.

Display Hospital Selector



### 2.1.16.4.2 View Patients

View Patients screen allows the user to select a patient to change an episode's consent for, either by filtering current/recent patients or searching by MRN.

The screenshot shows the 'Withdraw Consent' interface in a browser window. At the top, there's a navigation bar with links: Home, Assisted Registration, HPI-I Search, PCEHR Viewer, Data Integrity, Consent Management, and Document Management. Below this is a 'Hospital' selector dropdown currently set to 'Hospitals'. A search bar is located above the main data table. The table has columns for Name, Date of Birth, MRN, Location, Consent Withdrawn, and Actions. The 'Actions' column contains 'Review Consent' links for each row. Below the table, there's a pagination control showing 'Showing 1 to 10 of 33 entries' and buttons for 'First', 'Prev', '1', 'Next', and 'Last'. At the bottom, there's a 'Lookup by MRN' section with an input field and a 'Lookup' button.

**Sortable columns. Default sort Name ASC.**

**Data to display (as available):**

- Name
- Date of Birth
- MRN
- Location (Ward:Room:Bed) of latest episode at the selected hospital
- Latest Episode Consent

**Data not cached so refreshing the page refreshes the data live.**

**Summary of matching results.**

**Errors and feedback to be displayed on top of page.**

**Hospital Selector to change hospital.**

**Search bar to filter across all columns (except actions)**

**Clicking "Review Consent" link shows the episodes that the selected patient has had at the current healthcare provider organisation ('View Episodes).**

**Paging of results  
Page size: 10.**

**Lookup by MRN allows exact search on MRN across all time. If result found that patient is selected. Otherwise an error is displayed.**

### 2.1.16.4.3 View Episodes

View Episodes screen lists the episodes at the selected hospital for the selected patient.

**Episodes at Test Hospital for SMITH, Jane**

Home | Assisted Registration | HPI-I Search | PCEHR Viewer | Data Integrity | Consent Management | Document Management

Search:

Admitted	Discharged	Admission Reason	Responsible Provider	Consent Withdrawn	Actions
2/3/2014 12:03:00	-	Leg Pain	Dr Test Test	Yes	<a href="#">Reinstate Consent</a>
2/2/2014 02:22:33	22/2/2014 10:30:02	Arm Injury	Dr Test Test	No	<a href="#">Withdraw Consent</a>
2/2/2014 02:22:33	22/2/2014 10:30:02	Arm Injury	Dr Test Test	No	<a href="#">Withdraw Consent</a>
2/2/2014 02:22:33	22/2/2014 10:30:02	Arm Injury	Dr Test Test	No	<a href="#">Withdraw Consent</a>
2/2/2014 02:22:33	22/2/2014 10:30:02	Arm Injury	Dr Test Test	No	<a href="#">Withdraw Consent</a>
2/2/2014 02:22:33	22/2/2014 10:30:02	Arm Injury	Dr Test Test	No	<a href="#">Withdraw Consent</a>
2/3/2014 12:03:00	-	Leg Pain	Dr Test Test	Yes	<a href="#">Reinstate Consent</a>
2/2/2014 02:22:33	22/2/2014 10:30:02	Arm Injury	Dr Test Test	No	<a href="#">Withdraw Consent</a>
2/2/2014 02:22:33	22/2/2014 10:30:02	Arm Injury	Dr Test Test	No	<a href="#">Withdraw Consent</a>
2/2/2014 02:22:33	22/2/2014 10:30:02	Arm Injury	Dr Test Test	No	<a href="#">Withdraw Consent</a>

Showing 1 to 10 of 33 entries

First Prev 1 2 Next Last

Page size: 10.

Callouts:

- Title to be "Episodes at (Hospital) for (Patient Name)"
- Data to display:
  - Admission Date/Time
  - Discharge Date/Time (or "-")
  - Admission Reason
  - Responsible Provider
  - Consent Withdrawn
- Sortable columns. Default sort Name ASC.
- Summary of matching results.
- Errors and feedback to be displayed on top of page.
- Search bar to filter across all columns (except actions)
- Link to indicate Reinstate Consent vs Withdraw Consent depending on existing Consent Withdrawn status. Both go to the Consent Form which will display appropriately depending on existing Consent.
- Paging of results Page size: 10.

### 2.1.16.4.4 Consent Form (Withdraw Consent)

The Withdraw Consent form allows users to withdraw consent if they have not yet withdrawn consent for the specified episode.

**Data to display (as available):**

- Name + (MRN)
- Date of Birth
- Hospital
- Location (Ward:Room:Bed)
- Admission Date/Time
- Discharge Date/Time
- Responsible Provider
- Admission Reason

**Notes is required. Maximum length 5000 characters.**

**Confirmation required.**

**"Withdraw Consent" marks the current episode as consent withdrawn in eHISC. Feedback of the success of this operation is displayed. Repeat submission is disabled until feedback is received and only permitted if the submission was unsuccessful.**

**Title to be "Withdraw Consent for Episode"**

**Errors and feedback to be displayed on top of page.**

**Null fields (e.g. not discharged yet) to display "(None)"**

**Confirmation text and submit button to refer to "Withdraw Consent"**

The screenshot shows a web browser window titled "Withdraw Consent" with the NEHTA logo and navigation menu. The main content area is titled "Withdraw Consent for Episode" and contains a patient information table, a "Notes" text area, a "Confirm Withdraw Consent" checkbox with a message, and a "Withdraw Consent" button.

Patient	SMITH, Jane (SJ123456)	Date Of Birth	2/3/1980
Hospital	Royal NEHTA Hospital	Location	Ward 1Room2.Bed3
Admission Date	2/3/1980 12:20:39	Discharge Date	(None)
Responsible Provider	Dr TEST TEST	Admission Reason	Sore Foot

The screenshot shows a web browser window titled "Reinstate Consent" with the NEHTA logo and navigation menu. The main heading is "Reinstate Consent for Episode". A warning message states: "(!) The patient has already withdrawn consent to upload documents for this episode (notes below). Please complete the form below if you are sure you would like to reinstate consent." Below this is a "Withdraw Consent Notes" section with the text "Patient requested withdrawal of consent." A patient information table follows:

Patient	SMITH, Jane (SJ123456)	Date Of Birth	2/3/1980
Hospital	Royal NEHTA Hospital	Location	Ward 1Room2.Bed3
Admission Date	2/3/1980 12:20:39	Discharge Date	(None)
Responsible Provider	Dr TEST TEST	Admission Reason	Sore Foot

Below the table is a "Reinstate Notes" text area. At the bottom, there is a confirmation checkbox: "Please confirm that you want to reinstate uploads to the National eHealth Record (PCEHR) for the indicated episode." and a "Reinstate Consent" button.

Data to display (as available):

- Name + (MRN)
- Date of Birth
- Hospital
- Location (Ward:Room:Bed)
- Admission Date/Time
- Discharge Date/Time
- Responsible Provider
- Admission Reason

Title to be "Reinstate Consent for Episode"

Errors and feedback to be displayed on top of page.

Page to start with warning indicating that the current patient has previously withdrawn consent and include the Notes from the withdrawal.

Notes is required. Maximum length 5000 characters.

Null fields (e.g. not discharged yet) to display "(None)"

Confirmation required.

Confirmation text and submit button to refer to "Reinstate Consent"

"Reinstate Consent" marks the current episode as no longer consent withdrawn in eHISC. Feedback of the success of this operation is displayed. Repeat submission is disabled until feedback is received and only permitted if the submission was unsuccessful.

## 2.1.17 Remove Document

### 2.1.17.1 Description

'Remove Document' is a document management function allowing users to remove a document that has been uploaded by the current healthcare provider organisation to the PCEHR.

This functionality can be required in a number of scenarios:

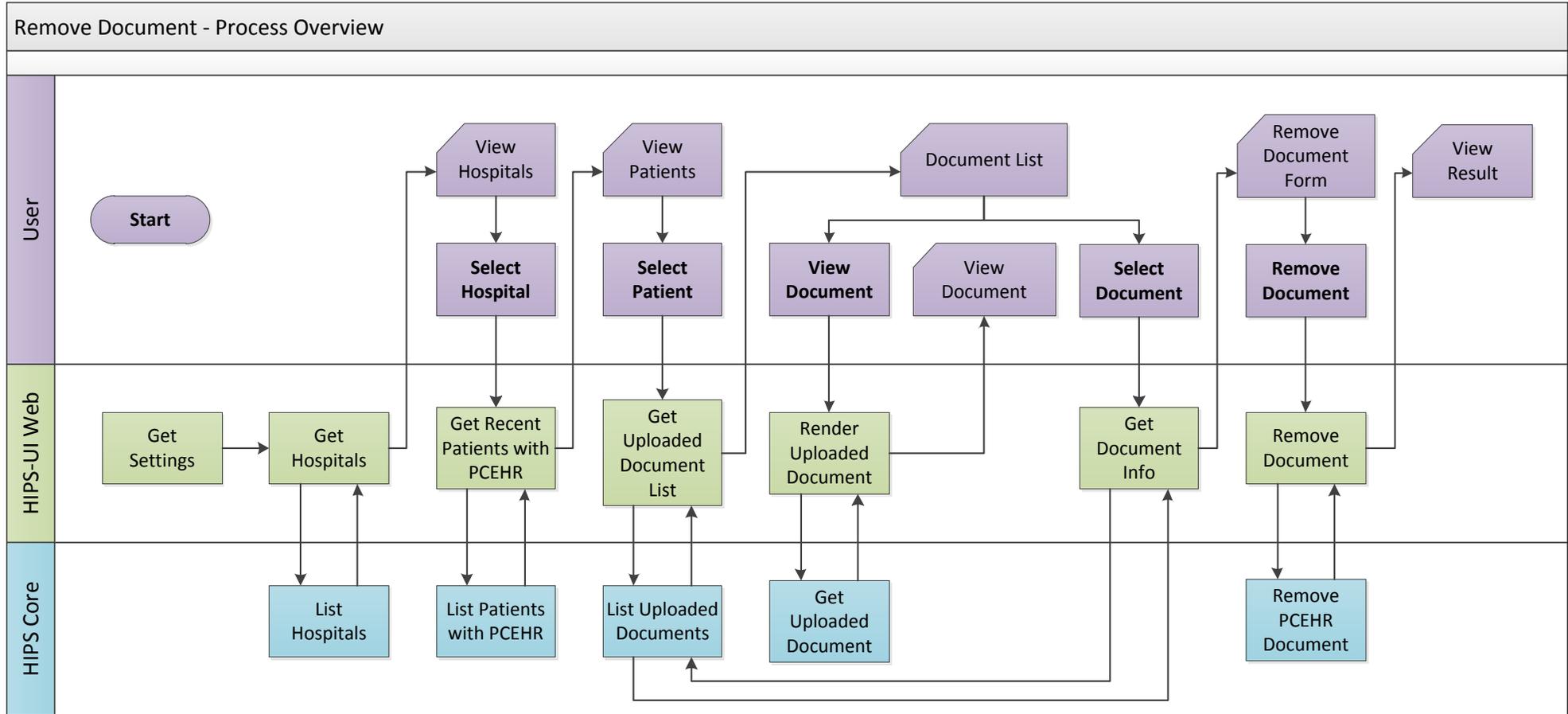
- A document was uploaded for the wrong individual (reason 'Incorrect Identity').
- A document was uploaded after the patient had signed a consent withdrawal, however the consent withdrawal has not yet been actioned within eHISC (reason 'Withdrawn').
- A patient forgot to ask a document not be uploaded and has requested the document be removed (reason 'Withdrawn'). This scenario is less likely as patients should do this themselves using the client portal.
- Information in a document is incorrect and clinical staff need to remove it prior to a corrected version being uploaded rather than superseding (reason 'Withdrawn').

Users are able to view all of the documents a healthcare provider organisation has uploaded for a patient who has a PCEHR and is either currently in hospital or recently discharged. Users can also find patients via their MRN at the current hospital.

Only documents uploaded via eHISC for the indicated patient by the selected hospital will be displayed. Prior to removal, documents can be viewed to see the contents of the document as originally uploaded.

Removal of documents requires a chosen reason and notes describing the reason for removal.

### 2.1.17.2 Process Overview



### 2.1.17.3 Process Detail

Activity / Decision	Description	Detail / Notes
Prerequisites	User logged in to the eHISC-UI Web application with appropriate security access.	Valid security details are required to login.
Start	User requests the 'Remove Document' page.	Located under Document Management > Remove Document.
Get Settings	eHISC-UI Web loads configuration settings.	Gets eHISC-UI Web configuration settings from the <i>Settings</i> table of the <i>HipsWebDataStore</i> database. Retrieves from cache if present and stores in cache after retrieval.
Get Hospitals	eHISC-UI Web gets a list of all hospitals in eHISC that are enabled for web administration.	Gets a list of all hospitals from the <i>ListHospitals</i> method of the eHISC <i>ReferenceService</i> web service. Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Filters the hospital list to only include hospitals that have a code in the <i>DefaultHospitalCodeSystem</i> code system. Retrieves from cache if present and stores in cache after retrieval.
List Hospitals	eHISC Core returns a list of all hospitals in eHISC.	Represents the <i>ListHospitals</i> method of the <i>ReferenceService</i> web service. Returns all <i>Hospitals</i> in eHISC. <i>Hospital</i> records include at least the following information: <ul style="list-style-type: none"> <li>• Hospital Name</li> <li>• Hospital ID</li> <li>• HPI-O</li> <li>• HPI-O Name</li> <li>• Hospital Codes and Code Systems</li> </ul>
View Hospitals	User receives a hospital selection screen.	See <a href="#">View Hospitals</a> .
Select Hospital	User requests the 'Withdraw Consent' page for a selected hospital.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> </ul>

Activity / Decision	Description	Detail / Notes
Get Recent Patients with PCEHR	eHISC-UI Web gets a list of patients (IHI and PCEHR are required) who are currently an inpatient at, or recently discharged from, the selected hospital.	<p>Refers to loaded configuration settings to determine <i>RemoveDocumentDaysDischarged</i> and <i>DefaultHospitalCodeSystem</i>.</p> <p>Gets a list of patients from the <i>ListAdmittedPatients</i> method of the eHISC <i>PatientService</i> web service using:</p> <ul style="list-style-type: none"> <li>• The Selected Hospital (Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• The <i>RemoveDocumentDaysDischarged</i> value to determine how many days of recently discharged patients are returned</li> <li>• True to require PCEHR</li> </ul> <p>Results are not cached.</p>
List Patients With PCEHR	eHISC Core returns a list of all patients (IHI and PCEHR required) currently at, or recently discharged from, the specified hospital.	<p>Represents the <i>ListAdmittedPatients</i> method of the <i>PatientService</i> web service.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• Hospital Code and Code System</li> <li>• Discharge Days number indicating how many days into the past to include discharged patients from</li> <li>• Indication of whether PCEHR is required</li> </ul> <p>Resolves the <i>HospitalId</i> for the provided hospital details.</p> <p>Determines the <i>MinimumDischargeDate</i> by subtracting the provided <i>Discharge Days</i> from the current date and time.</p> <p>Returns patient data for each <i>HospitalPatient</i> in eHISC who meets the following criteria:</p> <ul style="list-style-type: none"> <li>• Associated with the Identified Hospital             <ul style="list-style-type: none"> <li>◦ <i>HospitalId</i> matches the provided <i>HospitalId</i>.</li> </ul> </li> <li>• Currently inpatient at the selected hospital or discharged from the hospital within a configured number of days             <ul style="list-style-type: none"> <li>◦ The most recent <i>Episode</i> for the <i>HospitalPatient</i> has a <i>DischargeDate</i> that is either null or after the <i>MinimumDischargeDate</i>.</li> </ul> </li> <li>• Has an IHI</li> <li>• Has a PCEHR</li> </ul>

Activity / Decision	Description	Detail / Notes
		Patient data to include the following information (as available): <ul style="list-style-type: none"> <li>• Patient Name</li> <li>• Date of Birth</li> <li>• MRN</li> </ul>
View Patients	User receives a screen displaying the patient list for the selected hospital.	See <a href="#">View Patients</a> .
Select Patient	User selects a patient to view uploaded documents for.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> </ul>
Get Uploaded Document List	eHISC-UI Web gets a list of all documents uploaded for the selected patient by the selected hospital.	Refers to loaded configuration settings to determine DefaultHospitalCodeSystem. Gets a list of uploaded documents from the ListUploadedDocuments method of the eHISC PcehrService web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, DefaultHospitalCodeSystem)</li> </ul> Results are not cached.
List Uploaded Documents	eHISC Core gets all locally stored uploaded documents for the selected patient that were uploaded by the selected hospital.	Represents the <i>GetUploadedDocuments</i> method of the <i>PcehrService</i> web service. Returns all locally stored successfully uploaded documents for the indicated patient and hospital (refer to <i>ClinicalDocument</i> , <i>ClinicalDocumentStatus</i> , and <i>ClinicalDocumentVersion</i> tables). Receives the following input: <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> </ul> Returns at least the following information: <ul style="list-style-type: none"> <li>• Associated Episode Admission Date/Time</li> <li>• Associated Episode Discharge Date/Time</li> <li>• Responsible Provider Name</li> <li>• Status (Uploaded, Pending Remove, Removed, Failed Remove)</li> <li>• Document ID</li> <li>• Document Type</li> </ul>
Document List	User receives a list of successfully uploaded documents for the selected patient and hospital.	See <a href="#">Document List</a> .

Activity / Decision	Description	Detail / Notes
View Document	User selects a document to view.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• Document ID</li> </ul>
Render Uploaded Document	eHISC-UI Web retrieves an uploaded document in the form it was originally uploaded and renders it for viewing.	Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Gets an uploaded document from the <i>GetUploadedDocument</i> method of the eHISC <i>PcehrService</i> web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• Document ID</li> </ul> Retrieves from cache if present and stores in cache after retrieval. Rendering leverages and extends existing PCEHR Web Viewer functionality to render the document CDA package using the NEHTA stylesheet.
Get Uploaded Document	eHISC Core gets a locally stored uploaded document.	Represents the <i>GetUploadedDocument</i> method of the <i>PcehrService</i> web service. Returns a locally stored successfully uploaded document. Receives the following input: <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> <li>• Document ID</li> </ul> Returns at least the following information: <ul style="list-style-type: none"> <li>• Document CDA Package</li> </ul>
View Document	User views the rendered document as it was stored at the time of upload.	Leverages and adapts existing PCEHR Web Viewer functionality. See <a href="#">View Document</a> .
Select Document	User selects a document to remove.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• Document ID</li> </ul>

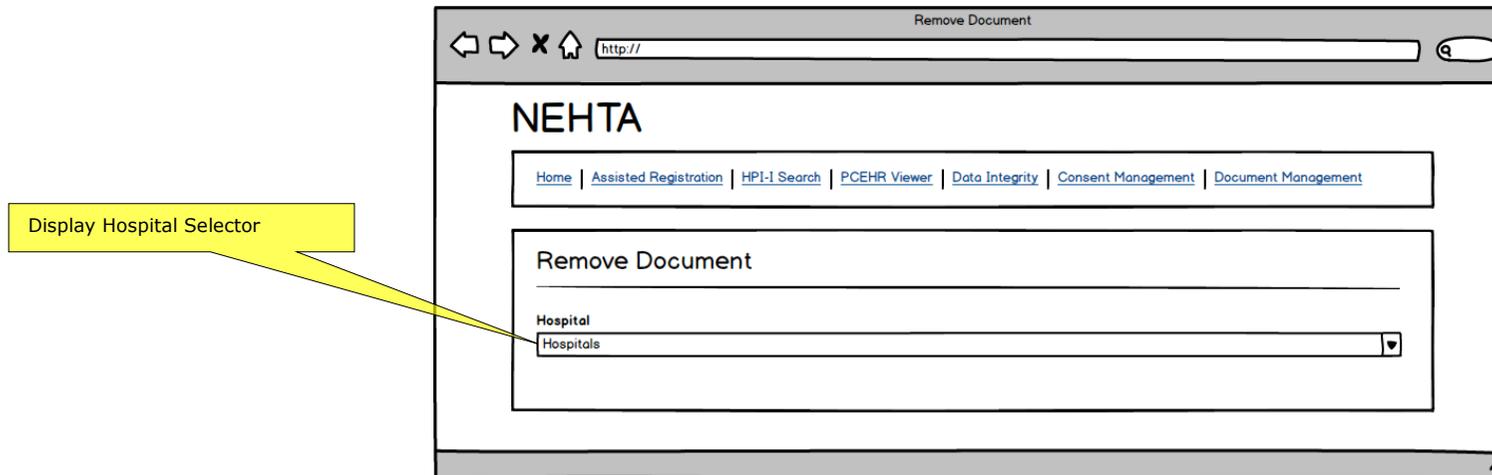
Activity / Decision	Description	Detail / Notes
Get Document Info	eHISC-UI Web retrieves the information about the uploaded document that has been selected for removal.	Retrieves at least the following information: <ul style="list-style-type: none"> <li>• Associated Episode Admission Date/Time</li> <li>• Associated Episode Discharge Date/Time</li> <li>• Responsible Provider Name</li> <li>• Associated Episode Responsible Provider</li> <li>• Associated Episode Admission Reason</li> <li>• Status (Uploaded, Pending Remove, Removed, Failed Remove)</li> <li>• Document ID</li> <li>• Document Type</li> <li>• Patient's Name</li> <li>• Patient's Date of Birth</li> <li>• Uploading Hospital</li> </ul>
List Uploaded Documents	eHISC Core gets all locally stored uploaded documents for the selected patient that were uploaded by the healthcare provider organisation representing the selected hospital.	See previous "List Uploaded Documents" step.
Remove Document Form	User receives the remove document form for the selected document.	This form requires a reason, notes, and confirmation. See <a href="#">Remove Document</a> .
Remove Document	User completes and submits the remove document form.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• Document ID</li> <li>• Reason</li> <li>• Notes</li> <li>• Confirmation of Removal</li> </ul>
Remove Document	eHISC-UI Web removes an uploaded document from the PCEHR.	Refers to loaded configuration settings to determine DefaultHospitalCodeSystem. Remove an uploaded documents from the PCEHR using the RemoveDocument method of the eHISC PcehrService web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, DefaultHospitalCodeSystem)</li> <li>• Document ID</li> </ul>

Remove PCEHR Document	eHISC Core removes a document from the PCEHR that was previously uploaded via eHISC.	Represents the <i>RemoveDocument</i> method of the <i>PcehrService</i> web service. Removes a document from the PCEHR. Receives the following input: <ul style="list-style-type: none"><li>• Patient MRN and associated Hospital Code and Code System</li><li>• Document ID</li></ul>
View Result	The User receives an updated form page indicating the patient has now successfully placed a request to remove the document.	The document list can be refreshed to retrieve the latest document state.

## 2.1.17.4 Web User Interfaces

### 2.1.17.4.1 View Hospitals

View Hospitals screen allows the user to select a hospital to find patients who need documents removed.



### 2.1.17.4.2 View Patients

View Patients screen allows the user to select a patient to remove documents from, either by filtering current/recent patients or searching by MRN.

The screenshot shows a web browser window titled "Remove Document". The page header includes the NEHTA logo and a navigation menu with links: Home, Assisted Registration, HPI-1 Search, PCEHR Viewer, Data Integrity, Consent Management, and Document Management. The main content area is titled "Remove Document" and contains a "Hospital" selector dropdown menu currently set to "Hospitals". Below this is a "Search:" input field. A table displays patient data with columns for Name, Date of Birth, MRN, and Actions. The "Actions" column contains a "View Uploaded Documents" link for each row. Below the table, it says "Showing 1 to 10 of 33 entries" and includes pagination controls: "First", "Prev", "1", "Next", "Last". At the bottom, there is a "Lookup by MRN:" section with an input field and a "Lookup" button.

**Data to display (as available):**

- Name
- Date of Birth
- MRN

**Sortable columns. Default sort Name ASC.**

**Summary of matching results.**

**Errors and feedback to be displayed on top of page.**

**Hospital Selector to change hospital.**

**Search bar to filter across all columns (except actions)**

**Clicking "View Uploaded Documents" link shows the documents that have been uploaded by the current healthcare provider organisation for the selected patient ('Document List').**

**Paging of results  
Page size: 10.**

**Lookup by MRN allows exact search on MRN across all time. If result found that patient is selected. Otherwise an error is displayed.**

Name	Date of Birth	MRN	Actions
JONES, Betty	2/3/1980	JONES123	<a href="#">View Uploaded Documents</a>
SMITH, Andrew	1/4/1990	56ASQ	<a href="#">View Uploaded Documents</a>
SQUIRE, Lily	1/2/1960	SQ123L	<a href="#">View Uploaded Documents</a>
JONES, Betty	2/3/1980	JONES123	<a href="#">View Uploaded Documents</a>
SMITH, Andrew	1/4/1990	56ASQ	<a href="#">View Uploaded Documents</a>
SQUIRE, Lily	1/2/1960	SQ123L	<a href="#">View Uploaded Documents</a>
JONES, Betty	2/3/1980	JONES123	<a href="#">View Uploaded Documents</a>
SMITH, Andrew	1/4/1990	56ASQ	<a href="#">View Uploaded Documents</a>
SQUIRE, Lily	1/2/1960	SQ123L	<a href="#">View Uploaded Documents</a>
JONES, Betty	2/3/1980	JONES123	<a href="#">View Uploaded Documents</a>

### 2.1.17.4.3 Document List

Document List displays a list of documents uploaded by the selected hospital for the selected patient.

The screenshot shows a web browser window titled "Documents Uploaded by Test Hospital for SMITH, Jane". The page header includes the NEHTA logo and a navigation menu with links for Home, Assisted Registration, HPI-I Search, PCEHR Viewer, Data Integrity, Consent Management, and Document Management. Below the header is a search bar and a table of documents. The table has columns for Type, Admitted, Discharged, Responsible Provider, Status, and Actions. The Actions column contains "View" and "Remove" links. At the bottom, there is a pagination control showing "Showing 1 to 10 of 33 entries" and buttons for First, Prev, 1, 2, Next, and Last.

**Title to be "Documents Uploaded by (Hospital) for (Patient Name)"**

**Data to display:**

- Document Type
- Admission Date/Time
- Discharge Date/Time (or "-")
- Responsible Provider
- Status

**Sortable columns. Default sort Name ASC.**

**Errors and feedback to be displayed on top of page.**

**Search bar to filter across all columns (except actions)**

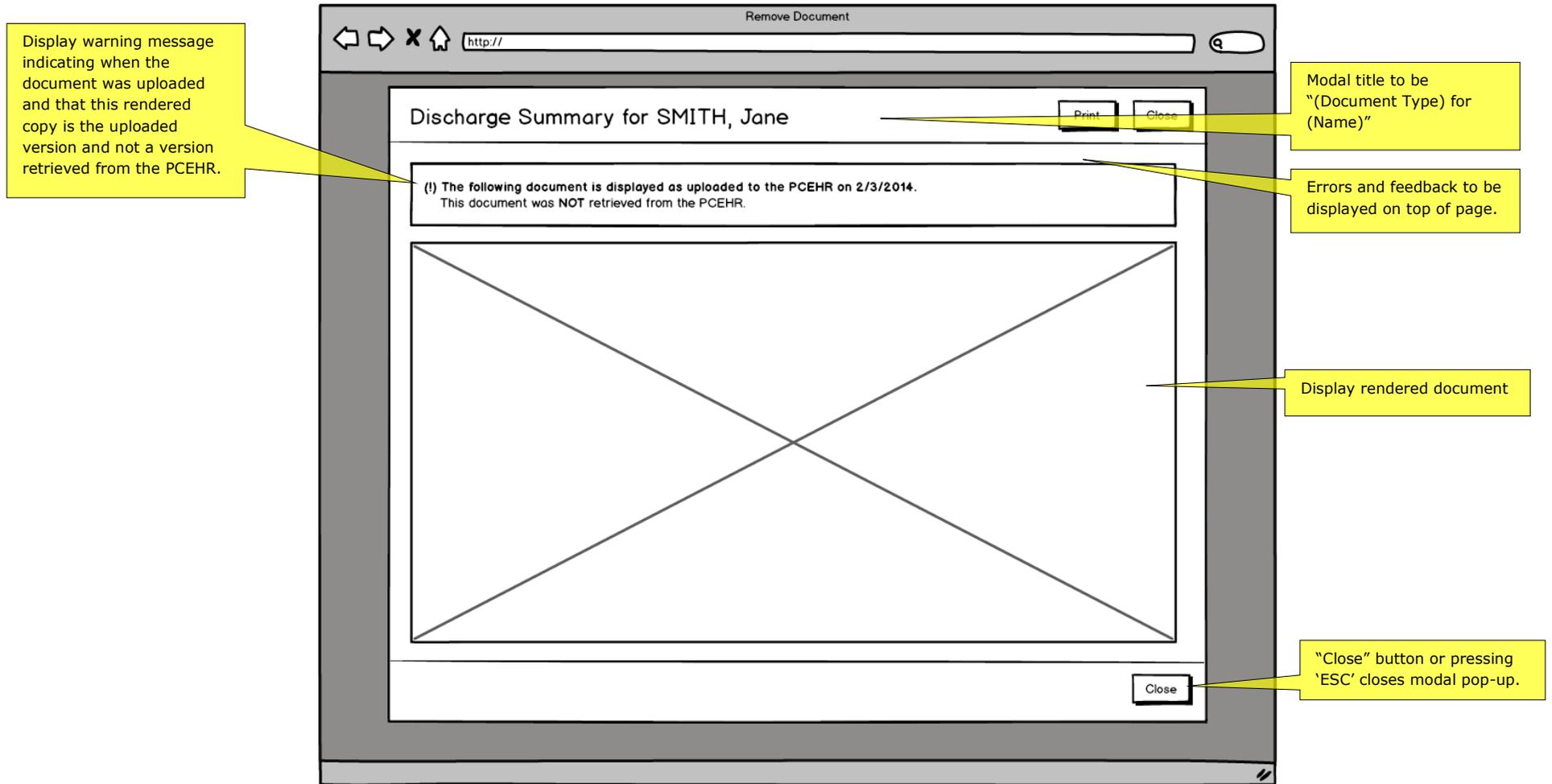
**Clicking "View" opens the document for viewing ("View Document"). Clicking "Remove" opens the document removal form ("Remove Document").**

**Summary of matching results.**

**Paging of results  
Page size: 10.**

### 2.1.17.4.4 View Document

View Document is displayed as a modal from the Document List. It renders and displays the document as it was originally uploaded to the PCEHR.



### 2.1.17.4.5 Remove Document

Remove Document screen is displayed as a modal and allows removal from the PCEHR of a document the current healthcare provider organisation uploaded.

The screenshot shows a web browser window titled "Remove Document" containing a modal form. The form title is "Remove Discharge Summary for SMITH, Jane". The form contains several sections: patient information, document details, removal reasons, a notes field, and a confirmation checkbox. A "Remove Document" button is at the bottom, and a "Close" button is in the bottom right corner. Callout boxes provide detailed instructions for each part of the form.

**Data to display (as available):**

- Name + (MRN)
- Date of Birth
- Hospital
- Document Type (from list information)
- Responsible Provider
- Admission Date/Time
- Discharge Date/Time
- Admission Reason

**Remove Reason is required, and must be either 'Incorrect Identity' or 'Withdrawn'**

**Notes is required. Maximum length 5000 characters.**

**Confirmation required.**

**"Remove Document" sends a document removal request to the PCEHR. Feedback of the success of this operation is displayed. Repeat submission is disabled until feedback is received and only permitted if the submission was unsuccessful.**

**Modal title to be "Remove (Document Type) for (Name)"**

**Errors and feedback to be displayed on top of page.**

**Null fields (e.g. not discharged yet) to display "(None)"**

**"Close" button or pressing 'ESC' closes modal pop-up.**

## 2.1.18 Upload PDF Discharge Summary

### 2.1.18.1 Description

'Upload PDF Discharge Summary' is a clinical documentation function allowing users to take a PDF file containing a discharge summary document, and upload it to a patient's national eHealth record (PCEHR).

### 2.1.18.2 Process Overview

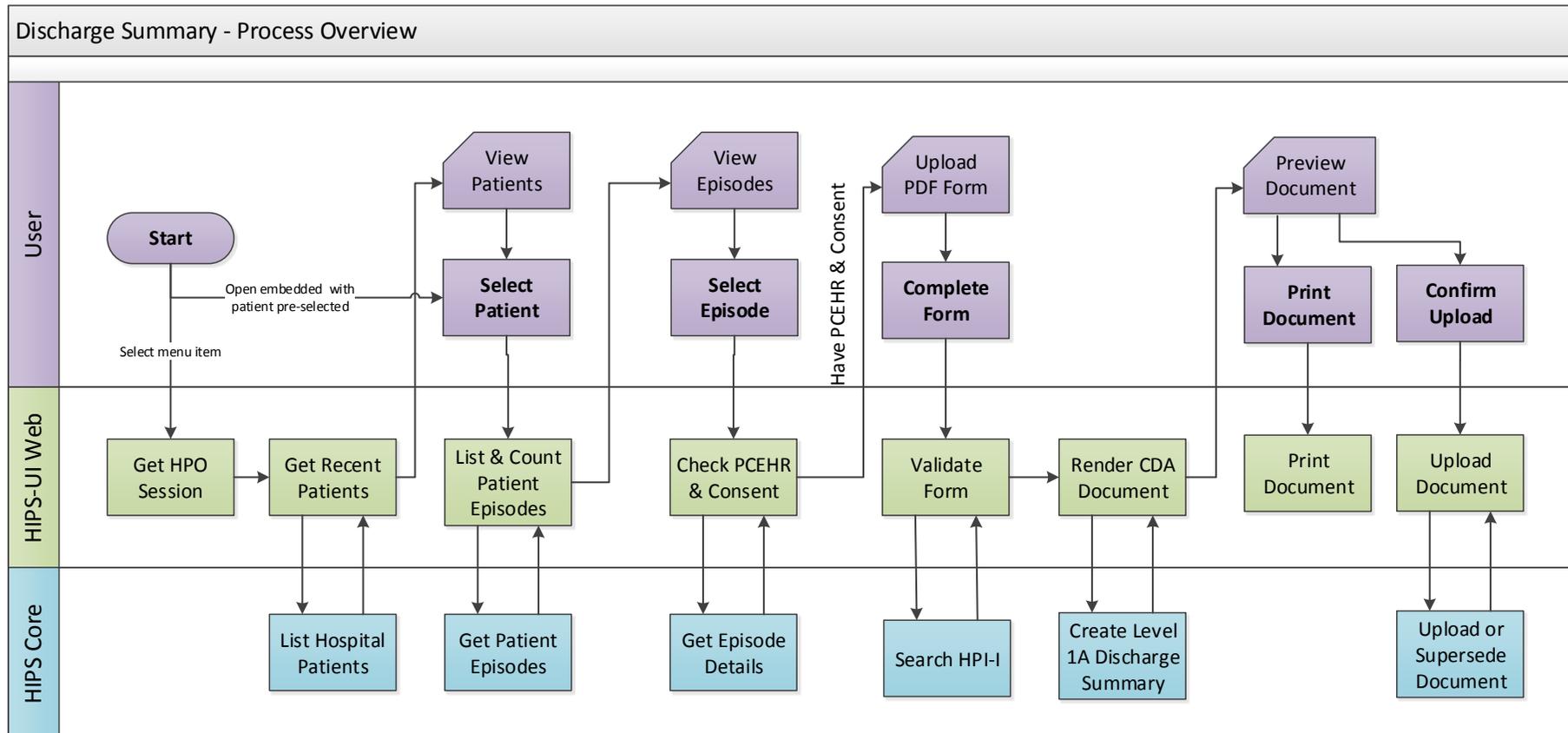


Figure 3 – Discharge Summary – Process Overview

### 2.1.18.3 Process Detail

Activity / Decision	Description	Detail / Notes
<i>Prerequisites</i>	User logged in to the eHISC-UI Web application with appropriate security access.	Valid security details are required to login.
	User has selected a hospital OR hospital code supplied in the embedded URL format.	Hospital code specified in URL will be resolved using 'DefaultHospitalCodeSystem' setting and set the hospital selection for the session. The controller will redirect to the Select HPO page if the session does not contain a hospital selection.
<b>Start</b>	User requests the 'Discharge Summary' page. OR External system links to embedded version with patient pre-selected.	A menu item for this feature will be located under Clinical Documentation > Discharge Summary. The embedded process skips to step "Select Patient".
Get Settings	eHISC-UI Web loads configuration settings.	Gets eHISC-UI Web configuration settings from the <i>Settings</i> table of the <i>HipsWebDataStore</i> database. Retrieves from cache if present and stores in cache after retrieval.
Get Recent Patients	eHISC-UI Web gets a list of patients (IHI and PCEHR are not required) who are currently an inpatient at, or recently discharged from, the selected hospital.	Refers to loaded configuration settings to determine <i>DischargeSummaryPatientListDaysDischarged</i> and <i>DefaultHospitalCodeSystem</i> . Gets a list of patients from the <i>ListAdmittedPatients</i> method of the eHISC <i>PatientService</i> web service using: <ul style="list-style-type: none"> <li>The Selected Hospital (Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>The <i>DischargeSummaryPatientListDaysDischarged</i> value to determine how many days of recently discharged patients are returned</li> </ul> Results are not cached.

Activity / Decision	Description	Detail / Notes
List Hospital Patients	eHISC Core returns a list of all patients (IHI and PCEHR not required) currently at, or recently discharged from, the specified hospital. The patient list indicates if the patient has a PCEHR.	<p>Represents the <i>ListAdmittedPatients</i> method of the <i>PatientService</i> web service.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• Hospital Code and Code System</li> <li>• Discharge Days number indicating how many days into the past to include discharged patients from</li> </ul> <p>Resolves the <i>HospitalId</i> for the provided hospital details.</p> <p>Determines the <i>MinimumDischargeDate</i> by subtracting the provided Discharge Days from the current date and time.</p> <p>Returns patient data for each <i>HospitalPatient</i> in eHISC who meets the following criteria:</p> <ul style="list-style-type: none"> <li>• Associated with the Identified Hospital                             <ul style="list-style-type: none"> <li>◦ <i>HospitalId</i> matches the provided <i>HospitalId</i>.</li> </ul> </li> <li>• Currently inpatient at the selected hospital or discharged from the hospital within a configured number of days                             <ul style="list-style-type: none"> <li>◦ The most recent <i>Episode</i> for the <i>HospitalPatient</i> has a <i>DischargeDate</i> that is either null or after the <i>MinimumDischargeDate</i>.</li> </ul> </li> </ul> <p>Patient data to include the following information (as available):</p> <ul style="list-style-type: none"> <li>• Patient Name</li> <li>• Date of Birth</li> <li>• MRN</li> <li>• Location (Ward, Room, and Bed) of the patient’s most recent episode at the selected hospital</li> <li>• PCEHR participation status</li> </ul>
View Patients	User receives a screen displaying the patient list for the selected hospital.	See view patients screen. There will not be an embedded version of this screen.
<b>Select Patient</b>	User selects a patient to upload or supersede a document. OR External system links to embedded version of this page.	Request includes the following fields: <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> </ul> or <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Registered Enterprise Patient ID</li> </ul>

Activity / Decision	Description	Detail / Notes
List Patient Episodes	eHISC-UI Web gets a list of all episodes (current and historical) at the current hospital for the specified patient, up to a configured number of days in the past (typically 365 days, one year is sufficient).	<p>Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i>.</p> <p>Gets a list of patient episodes from the <i>ListPatientEpisodesInHospital</i> method of the eHISC <i>PatientService</i> web service using:</p> <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• The <i>DischargeSummaryEpisodeList DaysDischarged</i> value to determine how many days of recently discharged episodes are returned</li> <li>• Include Documents setting which defines if the method should return information about previously uploaded documents</li> <li>• Document Code value which limits the type of documents returned by the method.</li> </ul> <p>Results are not cached.</p> <p>An episode selection screen is presented ("View Episodes").</p>
Get Patient Episodes	eHISC Core gets all episodes (current and historical) for the specified patient and hospital.	<p>Represents the <i>ListPatientEpisodesInHospital</i> method of the <i>PatientService</i> web service.</p> <p>Returns all <i>Episode</i> records for the indicated patient and hospital.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System.</li> <li>• Days Discharged value.</li> <li>• Include Documents setting.</li> <li>• Document Code value.</li> </ul> <p>Returns at least the following information:</p> <ul style="list-style-type: none"> <li>• Admission Date/Time</li> <li>• Discharge Date/Time</li> <li>• Admission Reason</li> <li>• Responsible Provider</li> <li>• Consent Withdrawn</li> <li>• Document Status (None, Uploaded, Removed)</li> </ul>
View Episodes	User receives a screen displaying the patient's episodes at a hospital.	See view episodes screen.

Activity / Decision	Description	Detail / Notes
<b>Select Episode</b>	User selects a patient's episode to upload or supersede the discharge summary for.	Request includes the following fields: <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• SourceSystemEpisodeId</li> </ul> OR <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Registered Enterprise Patient ID</li> <li>• SourceSystemEpisodeId</li> </ul>
Check PCEHR & Consent (including Get Episode Details)	eHISC-UI Web gets the details of the episode.	Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> , <i>DischargeSummaryAuthor</i> and <i>DischargeSummaryRHP</i> . Gets the list of values for Clinical Specialty from the <i>ClinicalSpecialty</i> table of the <i>HipsWebDataStore</i> database. Gets the details for the selected patient episode using the <i>GetEpisodeDetails</i> method of the eHISC <i>PatientService</i> web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• Source System Episode ID</li> </ul> Returns at least the following information: <ul style="list-style-type: none"> <li>• Admission Date/Time</li> <li>• Discharge Date/Time</li> <li>• Admission Reason</li> <li>• Responsible Provider Name and ID</li> <li>• Discharge Summary Status (None, Uploaded, Removed)</li> </ul>
Get Episode Details	eHISC Core gets details for the selected patient episode.	Represents the <i>GetEpisodeDetails</i> method of the <i>PatientService</i> web service. Returns a details of the specified patient episode. Receives the following input: <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> <li>• Source System Episode ID</li> </ul> Returns at least the following information for each document associated with the episode: <ul style="list-style-type: none"> <li>• Document ID</li> <li>• Document Type</li> <li>• Document Status (Uploaded / Removed)</li> </ul>

Activity / Decision	Description	Detail / Notes
Upload PDF Form	User receives the upload form showing upload or supersede as appropriate.	<p>For patient episodes that have no discharge summary uploaded, the user receives a form allowing them to upload a PDF discharge summary.</p> <p>For patient episodes that have a discharge summary uploaded (status is Uploaded or Removed), the user receives a form allowing them to select another PDF to supersede the discharge summary for the indicated episode.</p> <p>Author and RHP are pre-populated with current user or the responsible provider of the episode, depending on <i>DischargeSummaryAuthor</i> and <i>DischargeSummaryRHP</i> settings.</p> <p>These forms require metadata and confirmation.</p>
<b>Complete Form</b>	User completes the Upload PDF Discharge Summary form (either to Upload or Supersede) and submits the form.	<p>User request includes the following field(s):</p> <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• MRN or Registered Enterprise Patient ID</li> <li>• Source System Episode ID</li> <li>• Document Author (ID, names, HPI-I)</li> <li>• Responsible Health Professional at Time of Discharge (ID, names, HPI-I)</li> <li>• Attached file names and contents (Body PDF, Images, Logo)</li> <li>• Document Status</li> <li>• Mode of Separation</li> <li>• Clinical Specialty</li> <li>• Date and Time of Completion</li> <li>• Confirmation of intent to upload</li> </ul>
Validate Form (Upload PDF)	eHISC-UI Web validates the form contents.	<p>Validates the form contents.</p> <p>Validates the HPI-I of the Author and Responsible Health Professional (if entered) using the <i>HpiiValidation</i> method of the eHISC <i>HpiiService</i> web service using:</p> <ul style="list-style-type: none"> <li>• HPI-I number</li> <li>• Family Name</li> <li>• Given Name</li> </ul> <p>Results are not cached.</p>

Activity / Decision	Description	Detail / Notes
Render CDA Document	eHISC-UI Web creates a CDA wrapper for the PDF discharge summary document and renders it for viewing.	<p>Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i>.</p> <p>Gets a CDA wrapper for the document from the <i>CreateDischargeSummaryLevel1A</i> method of the eHISC <i>CdaService</i> web service using:</p> <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• Admission and Discharge Date/Time</li> <li>• Document Author (ID, names, HPI-I)</li> <li>• Responsible Health Professional at Time of Discharge (ID, names, HPI-I)</li> <li>• Attached file names and contents (Body PDF, Images, Logo)</li> <li>• Document Status</li> <li>• Mode of Separation</li> <li>• Clinical Specialty</li> <li>• Date and Time of Completion</li> </ul> <p>Stores in cache after creation, using these keys:</p> <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• Document Set ID</li> <li>• Document ID</li> </ul> <p>Rendering leverages and extends existing PCEHR Web Viewer functionality to render the document CDA package using the NEHTA stylesheet.</p>
Create Level 1A Discharge Summary	eHISC Core creates a CDA wrapper for the PDF document.	<p>Represents the <i>CreateDischargeSummaryLevel1A</i> method of the <i>CdaService</i> web service.</p> <p>Creates a CDA discharge summary document that wraps a PDF document body.</p> <p>Receives the following input:</p> <ul style="list-style-type: none"> <li>• PDF document</li> <li>• Patient identifier</li> <li>• CDA header metadata</li> <li>• Attachment files</li> </ul> <p>Returns at least the following information:</p> <ul style="list-style-type: none"> <li>• CDA document</li> <li>• Attachment files</li> </ul>
Preview Document	User views the rendered document as it would be shown on the PCEHR.	Leverages and adapts existing PCEHR Web Viewer functionality. See view document screen.

Activity / Decision	Description	Detail / Notes
<b>Print Document</b>	User clicks the Print button on the view document modal window.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• Document Set ID</li> <li>• Document ID</li> </ul>
Print Document	eHISC-UI Web renders the document in a new window for printing.	Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Retrieve the document from the cache. Views the document in a new window and invokes the print function of the browser.
<b>Confirm Upload</b>	User clicks the Upload button on the view document modal window.	User request includes the following field(s): <ul style="list-style-type: none"> <li>• Hospital Code</li> <li>• Patient MRN</li> <li>• Document Set ID</li> <li>• Document ID</li> </ul>
Upload Document	eHISC-UI Web uploads the document to the PCEHR.	Refers to loaded configuration settings to determine <i>DefaultHospitalCodeSystem</i> . Retrieve the document from the cache. Upload the document to the PCEHR using the <i>UploadOrSupersedeDocument</i> method of the eHISC <i>PcehrService</i> web service using: <ul style="list-style-type: none"> <li>• The Selected Patient (MRN, Hospital Code, <i>DefaultHospitalCodeSystem</i>)</li> <li>• CDA document</li> <li>• Attachment files</li> <li>• Document Format code for Level 1A Discharge Summary</li> </ul>
Upload Document to PCEHR	eHISC Core uploads or supersedes the document to the PCEHR.	Represents the <i>UploadOrSupersedeDocument</i> method of the <i>PcehrService</i> web service. Uploads a document to the PCEHR. Receives the following input: <ul style="list-style-type: none"> <li>• Patient MRN and associated Hospital Code and Code System</li> <li>• CDA document</li> <li>• Attachment files</li> <li>• Document format code</li> </ul>
View Result	The User receives an updated form page indicating the patient has now successfully placed a request to upload the document.	The episode list can be refreshed to retrieve the latest document state.

## 2.1.18.4 Web User Interfaces

### 2.1.18.4.1 View Patients

View Patients screen allows the user to select a patient, either by filtering current/recent patients or searching by MRN.

The screenshot shows a web browser window titled "Discharge Summary" with the URL "http://". The page header includes "HIPS-UI Version 4.11" and "Logged in as NAME on behalf of HOSPITAL (HPO NAME)". A navigation bar contains links for "Home", "Healthcare Identifiers", "Patient Registration", "Clinical Documentation", and "Secure Messaging".

The main content area is titled "Discharge Summary - Patients" and features a search bar. Below the search bar is a table with the following columns: Name, Date of Birth, MRN, Location, Has PCEHR, and Actions. The table contains 10 rows of patient data. Below the table, it says "Showing 1 to 10 of 33 entries" and includes pagination controls: "First", "Prev", "1", "Next", "Last". At the bottom, there is a "Lookup by MRN:" section with an input field and a "Lookup" button.

Callout boxes provide the following information:

- Sortable columns. Default sort Name ASC.** (Points to the column headers in the table)
- Data to display (as available):**
  - Name
  - Date of Birth
  - MRN
  - Location (Ward:Room:Bed) of latest episode at the selected hospital
  - PCEHR Status
- Link to Select HPO to change hospital.** (Points to the "HPO NAME" text in the header)
- Errors and feedback to be displayed on top of page.** (Points to the top of the page content area)
- Search bar to filter across all columns (except actions)** (Points to the search input field)
- Clicking "Select" link shows the episodes that the selected patient has had at the current healthcare provider organisation ("View Episodes").** (Points to a "Select" link in the Actions column)
- Paging of results**  
Page size: 10. (Points to the pagination controls)
- Lookup by MRN allows exact search on MRN across all time. If result found, episodes for that patient are shown. Otherwise an error is displayed and another patient can be selected.** (Points to the "Lookup" button)
- Summary of matching results.** (Points to the "Showing 1 to 10 of 33 entries" text)

### 2.1.18.4.2 View Episodes

View Episodes screen lists the episodes at the selected hospital for the selected patient. Also available as embedded without header/footer.

**Discharge Summary - Episodes**

HIPS-UI Version 4.1.1  
 Logged in as Dr Nila Batel on behalf of Test Hospital (Test Org)

Home | Healthcare Identifiers | Patient Registration | Clinical Documentation | Secure Messaging

**Discharge Summary - Episodes for SMITH, Jane**

Search:

Admitted	Discharged	Admission Reason	Responsible Provider	Discharge Summary	Actions
10/4/2014 11:22	-	Arm Injury	Dr Test Test	None	<a href="#">Upload</a>
5/4/2014 22:03	6/4/2014 11:30	Leg Pain	Dr Test Test	Uploaded	<a href="#">Supersede</a>
24/3/2014 12:22	25/3/2014 11:20	Arm Injury	Dr Test Test	None	<a href="#">Upload</a>
12/3/2014 11:22	13/3/2014 11:10	Arm Injury	Dr Test Test	None	<a href="#">Upload</a>
6/3/2014 23:22	7/3/2014 11:00	Arm Injury	Dr Test Test	None	<a href="#">Upload</a>
3/3/2014 09:22	4/3/2014 10:50	Arm Injury	Dr Test Test	None	<a href="#">Upload</a>
16/2/2014 10:03	20/2/2013 10:40	Leg Pain	Dr Test Test	Uploaded	<a href="#">Supersede</a>
8/2/2014 11:22	10/2/2014 10:30	Arm Injury	Dr Test Test	None	<a href="#">Upload</a>
4/2/2014 14:22	6/2/2014 10:20	Arm Injury	Dr Test Test	Removed	<a href="#">Supersede</a>
2/2/2014 01:22	3/2/2014 10:10	Arm Injury	Dr Test Test	None	<a href="#">Upload</a>

Showing 1 to 10 of 33 entries

First Prev 1 2 Next Last

**Callouts:**

- Title to be "Discharge Summary - Episodes for (Patient Name)"
- Errors and feedback to be displayed on top of page.
- Search bar to filter across all columns (except actions)
- Link to indicate Upload vs Supersede depending on existing Discharge Summary status. Both go to the Upload Form which will display appropriately depending on existing status.
- Paging of results Page size: 10.
- Sortable columns. Default sort Admitted DESC.
- Data to display:
  - Admission Date/Time
  - Discharge Date/Time (or "--")
  - Admission Reason
  - Responsible Provider
  - Discharge Summary (None, Uploaded, Removed)
- Summary of matching results.

### 2.1.18.4.3 Upload or Supersede PDF

Upload or Supersede PDF screen allows entry of the metadata and selection of the files to upload. Also available as embedded without header/footer.

**Title to be "Discharge Summary – Upload PDF" unless there is already a discharge summary uploaded for this episode, in which case "Discharge Summary – Supersede PDF".**

**Details of selected patient and episode appear at the top.**

**Author's ID and names are pre-populated from current user or episode (configurable).**

**Table to display:**

- Type (Body PDF, Image or Logo)
- File Name
- Size (KB or MB)

**Button to select discharge summary body. Accepts PDF up to 10 MB. User must select a body PDF before completing the form.**

**Drop-down to select document status.**

**Drop-down field to enter clinical specialty (configurable list).**

**Validates form, calls Create Level 1A and displays the document in a modal window.**

**Validation errors and feedback to be displayed on top of page.**

**Upload status shows whether the discharge summary for this episode has been uploaded or removed. (New / Uploaded / Removed)**

**Prepopulate discharge date/time from episode if not null, otherwise require user to enter.**

**RHP's ID and names are pre-populated from the user or responsible provider of the episode (configurable).**

**HPI-I fields can be left empty otherwise must start with "800361", pass Luhn check, and HPI-I search.**

**Link to remove item from table.**

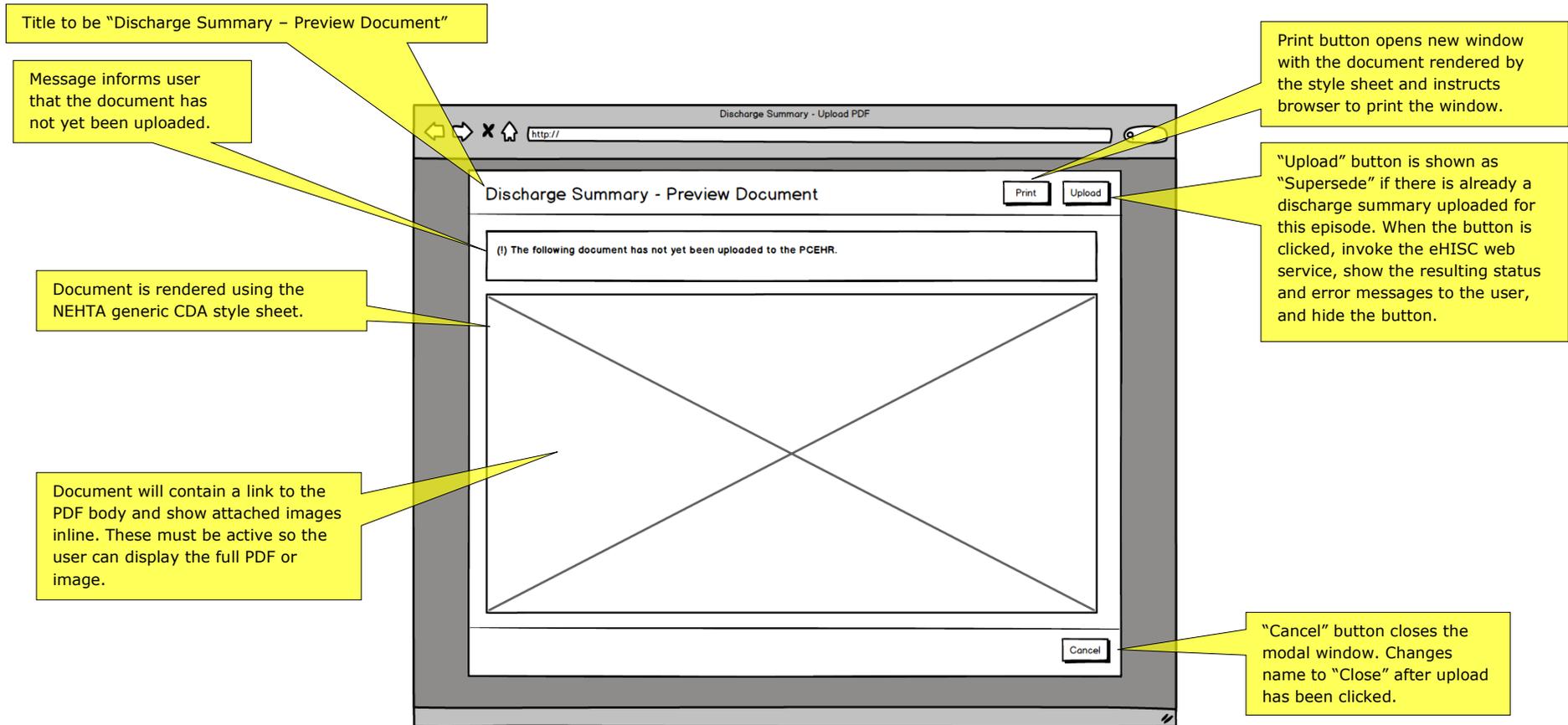
**Button to add image attachment. Accept JPG or PNG up to 10 MB. Note: Internet Explorer 8 will not support multiple attachments.**

**Drop-down to select mode of separation.**

**User must confirm upload and enter the document's completion date and time.**

### 2.1.18.4.4 Preview Document

Preview Document modal popup allows user to confirm the document contents before printing and uploading the document.



## 2.2 Embedded Pages

The embedded pages allow for the eHISC-UI to be accessed directly from other systems where applicable. The following section describes the embedded pages links. In all of the embedded pages no main site header or footer will be displayed.

### 2.2.1 Adult Patient Registration

The Adult Patient Registration page as described in Section 2.1.9 can be access directly using the URLs below.

URL	Description
http://[WebSite]:[Port]/EmbeddedAssistedRegistration/Hospitals/[Hospital Code]/Patients/[MRN]/Register	This URL should be used when each HPO has a separate MRN and they are not shared between HPOs.
http://[WebSite]:[Port]/EmbeddedEnterpriseAssistedRegistration/Hospitals/[Hospital Code]/Patients/[MRN]/Register	This URL should be used when multiple HPOs have a single MRN for each Patient across the Enterprise
http://[WebSite]:[Port]/EmbeddedEnterpriseAssistedRegistration/Hospitals/[Hospital Code]/Patients/[MRN]/[StatePatientId]/Register	This URL should be used when multiple HPOs each create an MRN for each Patient, but there is a single Patient Id which links the MRN across the Enterprise

Where:

- [WebSite]:[Port] is the configured WebSite address and Port number for the eHISC-UI.
- [Hospital Code] is the Health Provider Organisation (HPO) Code from where the Patient is being registered from.
- [MRN] is the Patient's MRN for the HPO.
- [StatePatientId] is the Enterprise or State Patient Id that links multiple MRN's to one Patient.

### 2.2.2 Dependent Patient Registration

The Dependent Patient Registration page as described in Section 2.1.10 can be access directly using the URLs below.

URL	Description
http://[WebSite]:[Port]/EmbeddedAssistedRegistration/Hospitals/[Hospital Code]/Patients/[MRN]/RegisterDependent	This URL should be used when each HPO has a separate MRN and they are not shared between HPOs.
http://[WebSite]:[Port]/EmbeddedEnterpriseAssistedRegistration/Hospitals/[Hospital Code]/Patients/[MRN]/RegisterDependent	This URL should be used when multiple HPOs have a single MRN for each Patient across the Enterprise

URL	Description
http://[WebSite]:[Port]/EmbeddedEnterpriseAssistedRegistration/Hospitals/[Hospital Code]/Patients/[MRN]/[StatePatientId]/RegisterDependent	This URL should be used when multiple HPOs each create an MRN for each Patient, but there is a single Patient Id which links the MRN across the Enterprise

Where:

- [WebSite]:[Port] is the configured WebSite address and Port number for the eHISC-UI.
- [Hospital Code] is the Health Provider Organisation (HPO) Code from where the Patient is being registered from.
- [MRN] is the Patient's MRN for the HPO.
- [StatePatientId] is the Enterprise or State Patient Id that links multiple MRN's to one Patient.

### 2.2.3 Patient Summary

The Patient Summary page as described in Section 2.1.4 can be access directly using the URLs below.

URL	Description
http://[WebSite]:[Port]/EmbeddedPcehrView/Hospitals/[Hospital Code]/Patients/[MRN]/PatientSummary	This URL should be used when each HPO has a separate MRN and they are not shared between HPOs.
http://[WebSite]:[Port]/EmbeddedEnterprisePcehrView/Hospitals/[Hospital Code]/Patients/[MRN]/PatientSummary	This URL should be used when multiple HPOs have a single MRN for each Patient across the Enterprise
http://[WebSite]:[Port]/EmbeddedEnterprisePcehrView/Hospitals/[Hospital Code]/Patients/[MRN]/[StatePatientId]/PatientSummary	This URL should be used when multiple HPOs each create an MRN for each Patient, but there is a single Patient Id which links the MRN across the Enterprise

Where:

- [WebSite]:[Port] is the configured WebSite address and Port number for the eHISC-UI.
- [Hospital Code] is the Health Provider Organisation (HPO) Code from where the Patient is being registered from.
- [MRN] is the Patient's MRN for the HPO.
- [StatePatientId] is the Enterprise or State Patient Id that links multiple MRN's to one Patient.

## 2.2.4 Upload PDF Discharge Summary

The Upload PDF Discharge Summary page as described in Section 2.1.8 can be access directly using the URLs below.

URL	Description
<p>http://[WebSite]:[Port]/EmbeddedDocumentUpload/Hospitals/[Hospital Code]/Patients/[MRN]/Episodes</p>	<p>This URL should be used when each HPO has a separate MRN and they are not shared between HPOs.</p> <p>This URL will display the View Episodes page for the given Patient as per section 2.1.18.4.2</p>
<p>http://[WebSite]:[Port]/EmbeddedDocumentUpload/Hospitals/[Hospital Code]/Patients/[MRN]/Episodes/[Episode ID]/Upload</p>	<p>This URL should be used when each HPO has a separate MRN and they are not shared between HPOs.</p> <p>This URL will display the Upload or Supersede PDF page for the given Patient and Episode as per section 2.1.18.4.3</p>
<p>http://[WebSite]:[Port]/EmbeddedEnterpriseDocumentUpload/Hospitals/[Hospital Code]/Patients/[MRN]/Episodes</p>	<p>This URL should be used when multiple HPOs have a single MRN for each Patient across the Enterprise</p> <p>This URL will display the View Episodes page for the given Patient as per section 2.1.18.4.2</p>
<p>http://[WebSite]:[Port]/EmbeddedEnterpriseDocumentUpload/Hospitals/[Hospital Code]/Patients/[MRN]/Episodes/[Episode ID]/Upload</p>	<p>This URL should be used when multiple HPOs have a single MRN for each Patient across the Enterprise</p> <p>This URL will display the Upload or Supersede PDF page for the given Patient and Episode as per section 2.1.18.4.3</p>
<p>http://[WebSite]:[Port]/EmbeddedEnterpriseDocumentUpload/Hospitals/[Hospital Code]/Patients/[MRN]/[StatePatientId]/Episodes</p>	<p>This URL should be used when multiple HPOs each create an MRN for each Patient, but there is a single Patient Id which links the MRN across the Enterprise</p> <p>This URL will display the View Episodes page for the given Patient as per section 2.1.18.4.2</p>

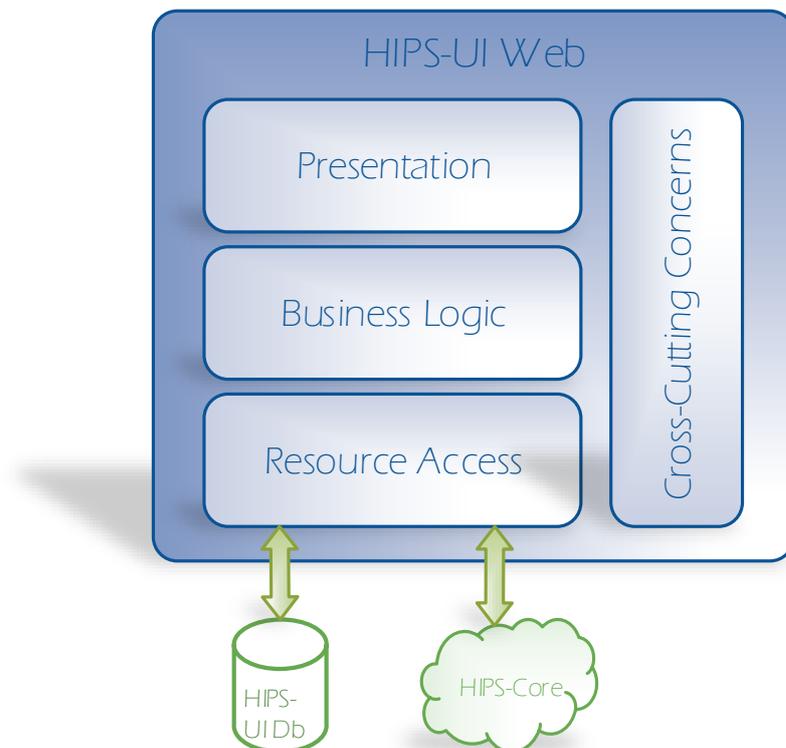
URL	Description
<p>http://[WebSite]:[Port]/EmbeddedEnterpriseDocumentUpload/Hospitals/[Hospital Code]/Patients/[MRN]/[StatePatientId]/Episodes/{Episode ID}/Upload</p>	<p>This URL should be used when multiple HPOs each create an MRN for each Patient, but there is a single Patient Id which links the MRN across the Enterprise</p> <p>This URL will display the Upload or Supersede PDF page for the given Patient and Episode as per section 2.1.18.4.3</p>

Where:

- [WebSite]:[Port] is the configured WebSite address and Port number for the eHISC-UI.
- [Hospital Code] is the Health Provider Organisation (HPO) Code from where the Patient is being registered from.
- [MRN] is the Patient’s MRN for the HPO.
- [StatePatientId] is the Enterprise or State Patient Id that links multiple MRN’s to one Patient.
- [EpisodeId] is the Episode Id for the Patient in the HPO.

### 2.3 Architecture Overview

The eHISC-UI Web product is architected as a layered web application built with Microsoft technologies, illustrated below.



The layers in the application architecture are:

Layer	Description
Presentation	Provides a web browser based graphical user interface with which users of the application interact.
Business Logic	Encapsulates the business rules, validation, and business processes for the application.
Resource Access	Provides access to external resources such as databases and web services.
Cross-Cutting Concerns	Supports elements of the application architecture that are common requirements across application layers and tiers.
Resources	External resources such as databases and web services with which the application interacts.

The eHISC-UI Web product is built upon the following technology platform:

Role	Technology
Core	
Presentation	ASP.NET MVC 4.0 HTML 5.0 CSS 3.0 Javascript, JSON <a href="#">Bootstrap</a> <a href="#">DataTables</a> <a href="#">jQuery</a>
Business Logic	.NET Framework 4.5
Resource Access	Entity Framework 6.1 (database) WCF 4.5 (web services)
Cross-Cutting Concerns	
Configuration	System.Configuration
Security	Active Directory <a href="#">MVC Authorization</a>
Exception Management	IIS 7 Error Handling
Logging & Instrumentation	<a href="#">ELMAH.MVC</a>
Caching	System.Runtime.Caching.MemoryCache
Validation	System.ComponentModel.DataAnnotations
Object Mapping	<a href="#">AutoMapper</a>
Dependency Injection	<a href="#">Ninject</a>
Shared Logic	.NET Framework 4.5
Object Serialization	<a href="#">Json.NET</a>

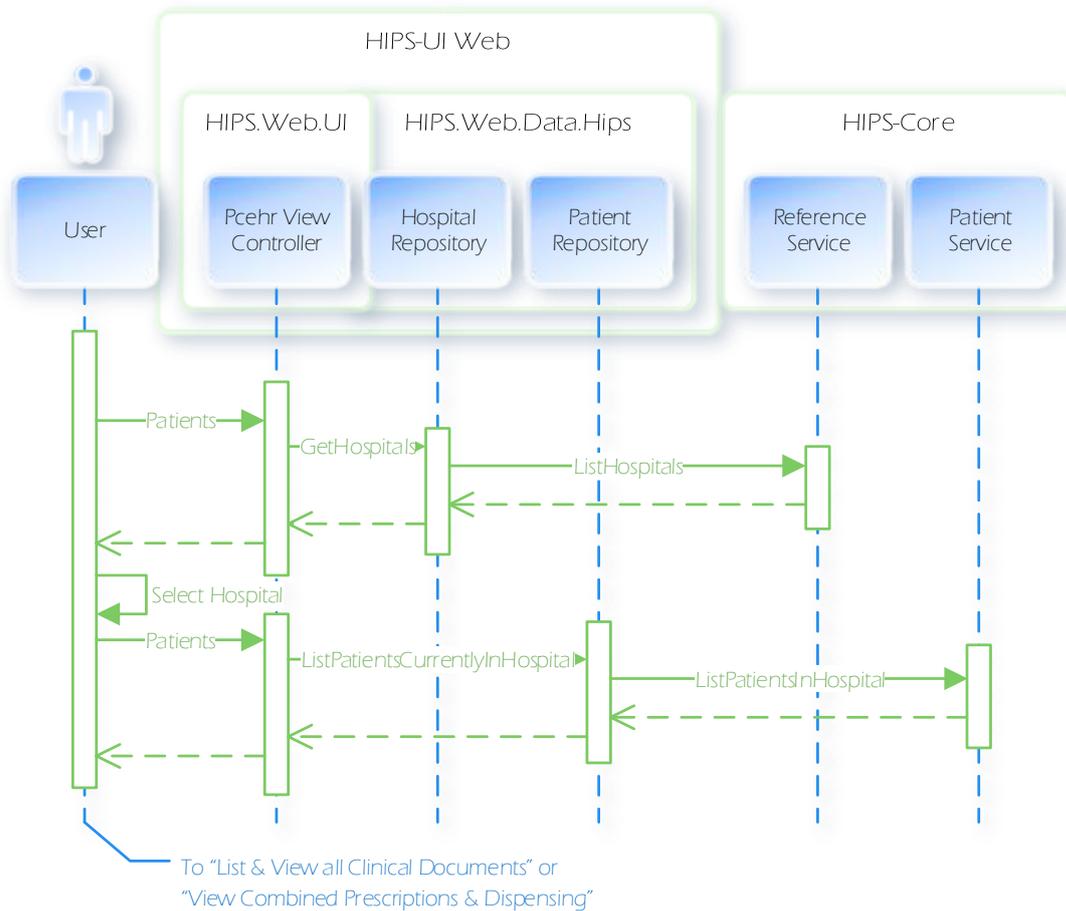
## 2.4 Interaction Model

The following UML sequence diagrams illustrate the anticipated interactions between the actors and components that realise the PCEHR Web Viewer feature. The diagrams illustrate both eHISC-UI Web components and the services provided by eHISC-Core it is expected to interact with.

NOTE: Diagrams favour comprehension over strict compliance with the UML standard.

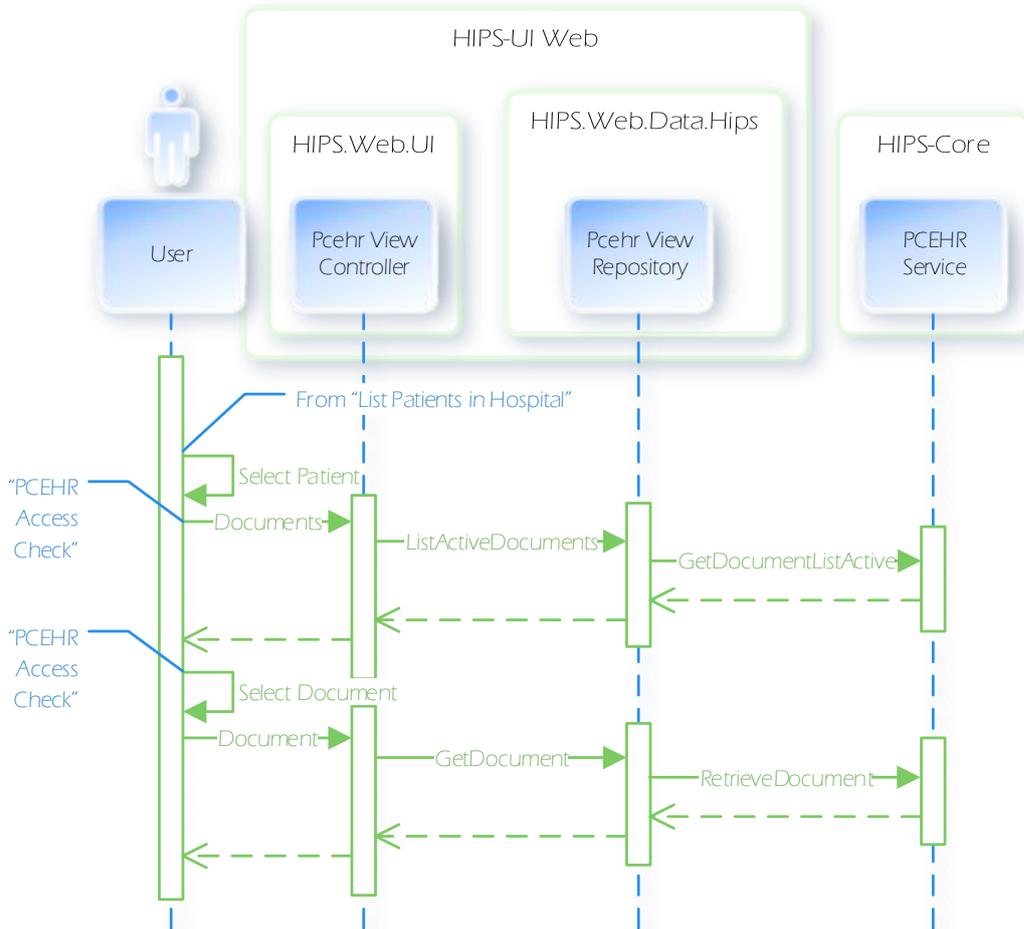
### 2.4.1 List Patients in Hospital

The diagram below illustrates the core interactions required to realise the “List Patients in Hospital” capability to select a hospital and list patients currently resident within the selected hospital. This capability is utilised by both the “List & View all Clinical Documents” capability (FR-1) and the “View Combined Prescriptions & Dispensing” capability (FR-2).



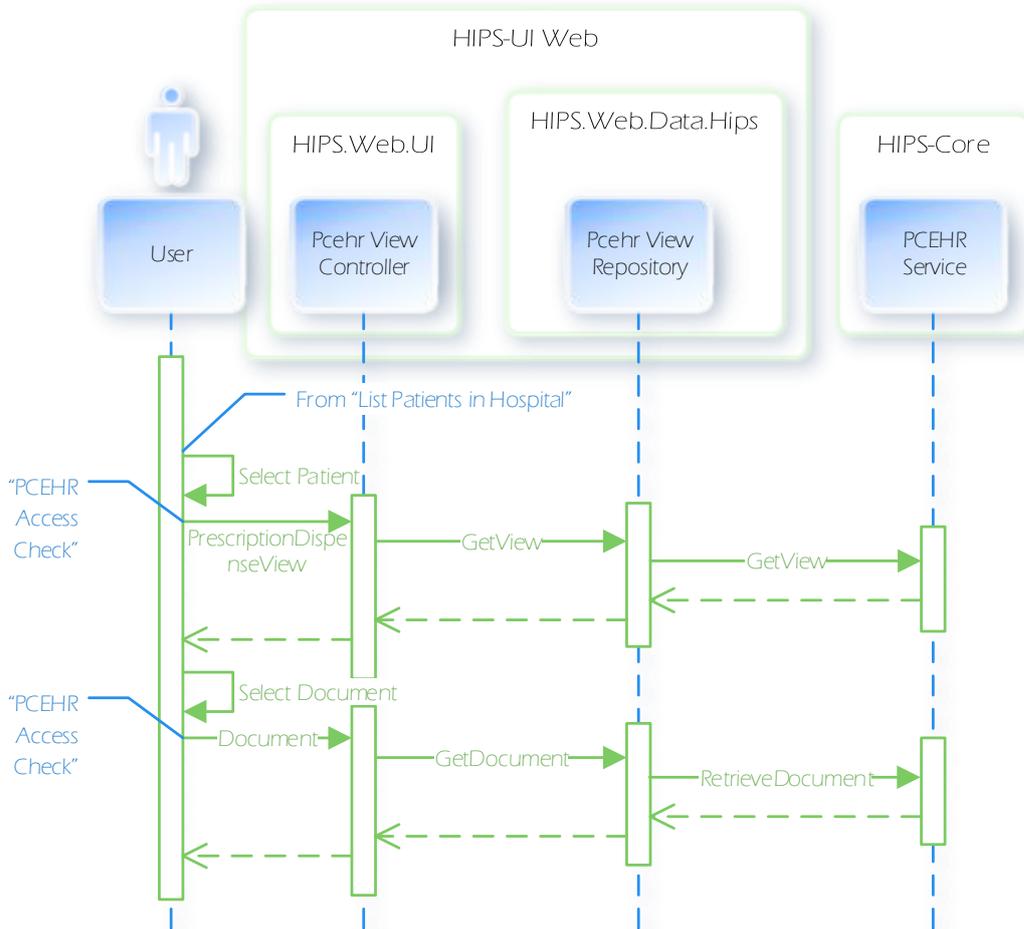
### 2.4.2 List & View all Clinical Documents

The diagram below illustrates the core interactions required to realise the “List & View all Clinical Documents” capability (FR-1) commencing with the selection of a patient listed as a result of the “List Patients in Hospital” capability.



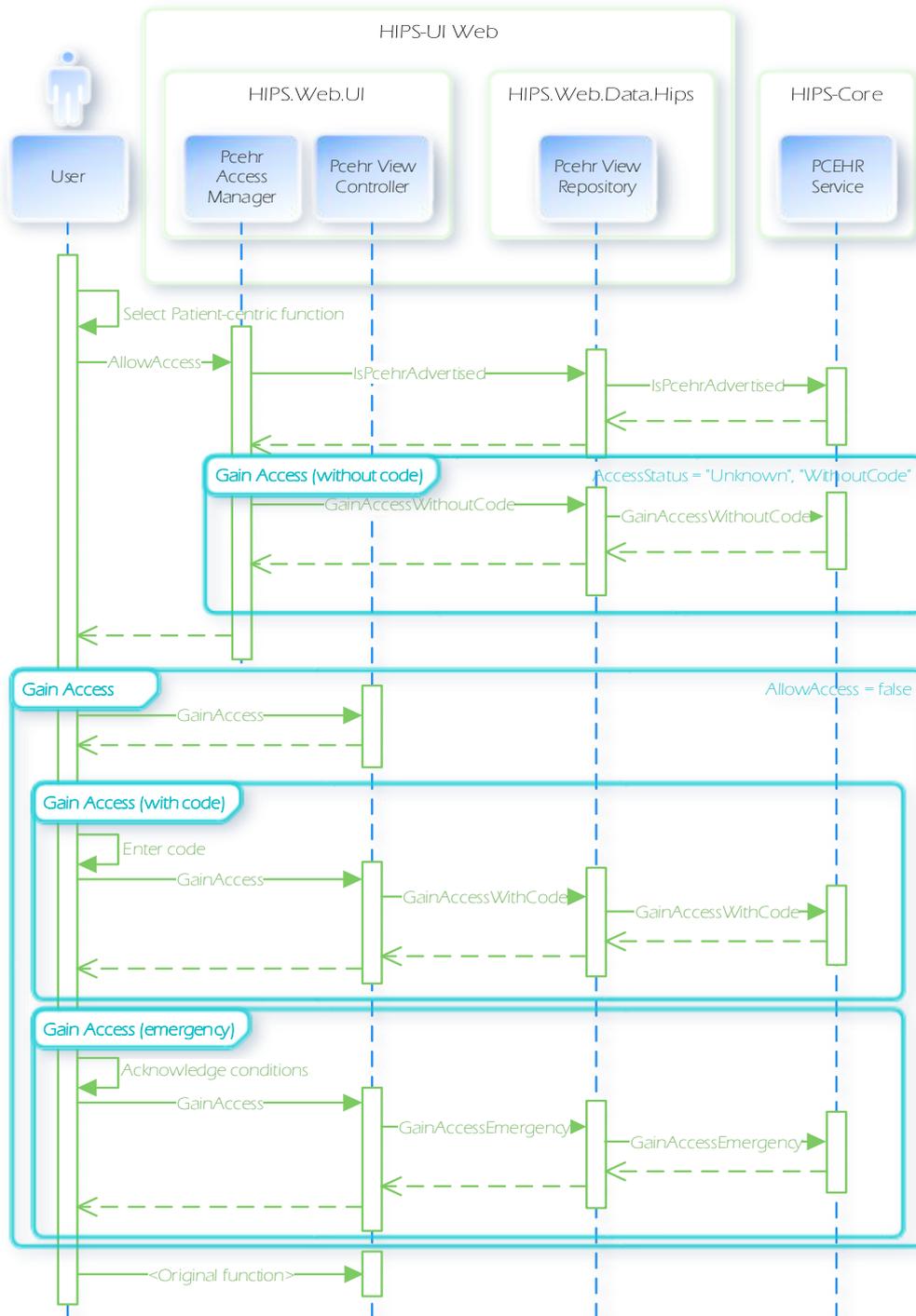
### 2.4.3 View Combined Prescriptions & Dispensing

The diagram below illustrates the core interactions required to realise the “View Combined Prescriptions & Dispensing” capability (FR-2) commencing with the selection of a patient listed as a result of the “List Patients in Hospital” capability.



### 2.4.4 PCEHR Access Check & Gain Access

The diagram below illustrates the core interactions required to realise the “PCEHR Access Check & Gain Access” capability (FR-3.2) commencing with the selection of a patient-centric function.



## 2.5 Deployment Model

### 2.5.1 Assumed Operating Environment

The following constraints are assumed to be placed upon the operating environment of the **client system** from which end-users will utilise the PCEHR Web Viewer:

- Supported client devices:
  - PC, laptop, tablet running a supported operating system natively
- Supported client platforms (operating system):
  - Windows 7, Windows 8
- Supported client web browsers:
  - Microsoft Internet Explorer 10+
  - Google Chrome 30+
  - Mozilla Firefox 24+
- Configuration required to meet CCA conformance requirements for rendering systems (CDAR\_RS\_01):
  - Web browser configuration:
    - Printing:
      - The window title must be printed as the page header on every printed page.
      - The page footer must include the "Page N of T" marker on every printed page.
      - Background colours and images must be printed.
      - Content must be shrunk to fit the printed page.
    - The web browser must not allow users to override the presentation and style of documents rendered as HTML (eg via "developer tools").
  - Client system configuration:
    - The client system must have appropriate software installed in order to open and view document attachments including HTML, PDF, RTF and Plain Text.
    - The client system's screen resolution must be at least 1024x768 pixels.

## 2.5.2 Configuration

The following key configuration settings are configured through the web.config file. Where relevant, the file contains a description of the purpose of each individual setting.

Setting	Description
appSettings	Contains sundry application settings, in particular used to configure the ELMAH package for error logging.
connectionStrings	Contains the database connection string to the eHISC-UI Web application database in SQL Server.
system.serviceModel/client	Contains endpoint references to the deployed location of the eHISC-Core services utilised by eHISC-UI Web.
mvcAuthorization	Supports configuration of authorization rules for security features of eHISC-UI Web.
elmah	Support further configuration of the ELMAH package for error logging.
applicationSettings/HIPS.Web.UI.Properties.Settings	Contains sundry application-specific settings.

A number of additional application-specific configuration settings are configured through the “Settings” table in the application database.

## 2.6 Cross-Cutting

### 2.6.1 Dependency Injection

- Ninject is used for limited dependency injection:
  - Creation & injection of repository classes and dependencies such as cache providers.
  - Creation & binding of the *PcehrAccessFilter* to controller action methods decorated with the *PcehrAccessAttribute*.
- Bindings are defined in HIPS.Web.UI.App\_Start.NinjectWebCommon.
- The following Nuget packages are utilised:
  - Ninject
  - Ninject.MVC3
  - Ninject.Web.Common

## 2.6.2 Caching

Caching is used where relevant within the repository classes implemented in the HIPS.Web.Data.Hips project and the HIPS.Web.ModelInterface project:

- The **HIPS.Web.Components.Cache.ICacheProvider** interface defines an interface to be implemented by cache providers.
- The **HIPS.Web.Components.Cache.CacheProvider** class implements the *ICacheProvider* interface to provide an abstract base class for cache provider implementations.
- The **HIPS.Web.Components.Cache.MemoryCacheProvider** class inherits from the *CacheProvider* class to provide a cache provider implementation based on the *System.Runtime.Caching.MemoryCache*. It supports conditional memory-based caching with absolute and sliding expiration.
- The **HIPS.Web.Data.Hips** project contains repository classes (*PatientRepository*, *PcehrViewRepository*) that accept an *ICacheProvider* instance via their constructor that is used for caching of successful results for each method invocation, with results cached by the runtime signature of the method invocation (including parameters).
- The **HIPS.Web.ModelInterface** project contains repository classes (*CachedHospitalRepository*, *CachedSettingsRepository*) that accept an *ICacheProvider* instance via their constructor that is used for caching of successful results for each method invocation.
- The *MemoryCacheProvider* is constructed and injected as relevant at runtime via Ninject. The absolute expiration used by each *MemoryCacheProvider* instance is defined in the "XXX\_AbsoluteExpirationOffset" settings in the *applicationSettings/HIPS.Web.UI.Properties.Settings* section of the application's web.config file.
- Further, the *MemoryCache* is configured via the *system.web/caching/cache* element in the application's web.config file.

### 2.6.2.1 Cache Dependencies

In order to ensure that items are removed / refreshed in the cache when the access level for an HPI-O changes (eg through an explicit "gain access"), the

#### **HIPS.Web.Data.Hips.PcehrViewRepository:**

- Creates cache dependencies between the list of documents for a patient and specific documents / PD view results (in the corresponding repository methods).
- Removes the "list of documents" cache item for the patient following a successful execution of any "gain access" repository method, causing dependent document and PD view items also to be removed.

### 2.6.2.2 Implications of Caching

The following are noted as implications of the use of memory-based caching within the PCEHR Web Viewer:

- It is recommended that the PCEHR Web Viewer not be deployed in a “web farm” (eg a network load balancing (NLB) cluster) where multiple distinct servers may service a particular request.
- Auditing implemented by eHISC-Core services will only audit the invocation of these services: if a service result is served from the cache instead of through another invocation of the providing service, the opportunity to audit this access is denied from the eHISC-Core service.

### 2.6.3 Error Handling

Error handling is implemented using a combination of **IIS Error Redirection** and **ASP.NET Custom Errors**. This is a contributing rationale for using IIS Express in development.

The error handling approach was designed to address the following technical intentions:

1. All errors will be displayed in a user-friendly format if possible. This includes ASP.NET runtime issues (e.g. application start errors), unhandled exceptions, default ASP.NET unsuccessful behaviours (e.g. file not found), and standard handling of intentional non-successful response codes (e.g. access forbidden).
2. If rendering a user-friendly error fails, the displayed message should not unintentionally reveal technical information.
3. It should be possible to intentionally return a response with a status code other than 200 if desired.

To meet these requirements the general high-level lifecycle of an error request is as follows:

1. A request is received by IIS and handled by the ASP.NET runtime for the eHISC Web UI application.
2. The eHISC Web UI application encounters an error or other non-standard operating condition.
3. The eHISC Web UI application returns a response to IIS with a status code other than 200. For an unhandled exception this may be a standard ASP.NET error page with a 500 status code.
4. If the response's *TrySkipIisCustomErrors* property has been set to true the response is returned verbatim to the web client. This occurs because IIS Error Redirection has been configured to process existing responses with the *Auto* behaviour which will pass-through existing responses if indicated to do so.
5. Otherwise, IIS refers to the *system.webServer/httpErrors* web configuration to determine if a mapping exists for the encountered status code. If it is a known status code IIS will execute the specified URL and return its response instead (as per the *ExecuteUrl* and *Custom* error mode behaviour settings). In the eHISC Web UI product these mappings generally execute an action on the *ErrorController* in order to display a user-friendly error.

6. If an additional error is encountered while executing the *ExecuteUrl* property (e.g. an error in the *ErrorController* or while starting the ASP.NET runtime) this will be returned verbatim. For this reason ASP.NET Custom Errors have been enabled for remote clients as a fallback to prevent exposure of technical details.

Initial eHISC Web UI configuration displays IIS redirected errors for 403, 404, and 500 status codes. 401 status codes do not redirect due to behavioural issues in Internet Explorer when using Windows Authentication and IIS Error Redirection.

By convention, errors intended for asynchronous clients (e.g. jQuery JSON requests) return a 422 status code with the *TrySkipIisCustomErrors* property set to true to enable a verbatim pass-through response.

Function-specific strategies focus on errors directly relevant to the execution of a specific action. This includes data validation errors, business rules violations, and connectivity issues with external systems (e.g. eHISC or the PCEHR System). Where identified these errors will, as detailed in relevant functional requirements, be presented in a function-specific manner. The presentation of these errors will, where practical, allow users to correct and reattempt their intended action.

An example of the presentation of a function-specific error is the demographic mismatch warning presented as part of the Document Viewer functionality.

## Document Viewer

 PCEHR View /  Patients /  Documents

 [Different DOB][Different Family Name] (Status: DemographicMismatchWarning)

General-purposes strategies focus largely on unexpected technical errors. This includes infrastructure issues and requests that cannot be processed for technical reasons. These errors will be presented as general purpose errors to users, with additional error detail logged where practical and feasible.

An example of the presentation of general-purposes errors is the page displayed for unexpected technical exceptions.

## Error

An unexpected error occurred.

Another example of a general purpose error is the page displayed when a non-existent page is requested.

## ❗ Not Found

The requested page could not be found.

### 2.6.4 Error Logging

Errors are logged using the *Error Logging Modules and Handlers for ASP.NET* or **ELMAH** package. This package uses a handler registered in the web.config configuration file and records errors to a configurable location such as a file or database store.

Additionally, the ELMAH package provides an interface to view logged errors which is by default located at the */elmah* URL path.

ELMAH is used to log:

- Unhandled errors: exceptions that are unexpected and have not been explicitly caught in-application code.
- Handled errors: invalid logic paths or exceptions caught in-application code, that may be catered for functionally (eg by displaying a message to the user), but which it is nonetheless desirable to log. This is achieved through an explicit call to ELMAH, for example:

```
Elmah.ErrorSignal.FromCurrentContext().Raise(new System.Exception(...));
```

## 2.7 Security Model

Security is implemented using a combination of IIS Windows Security for authentication and the MVC Authorization package for authorisation.

### 2.7.1 Authentication

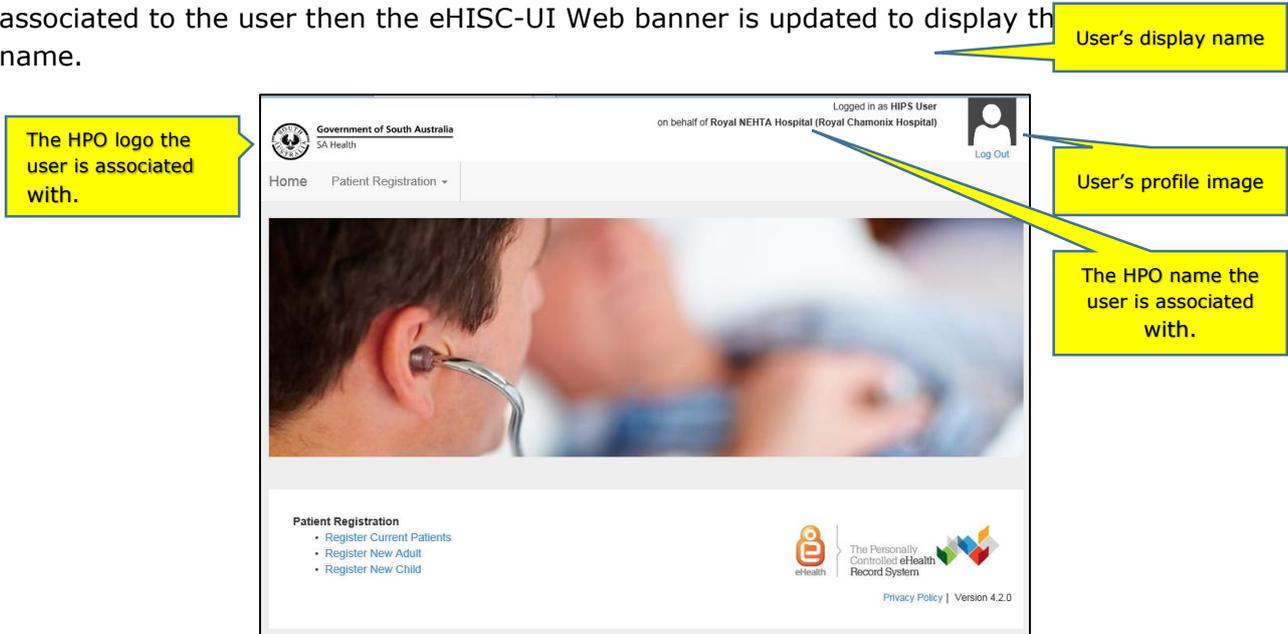
When a user first navigates to the eHISC-UI Web site they will be presented with a log in page.

The screenshot shows the login interface for HIPS-UI. It includes a header with the logo and a 'Home' link. The main content area is titled 'Log in.' and contains two input fields: 'User name' and 'Password'. To the right of the 'User name' field is a button labeled 'Log in with current user account'. Below the 'Password' field is a button labeled 'Windows'. At the bottom left of the login section is a 'Log in' button. The footer contains the 'eHealth' logo, the text 'The Personally Controlled eHealth Record System', and a link to 'Privacy Policy | Version 4.2.0'.

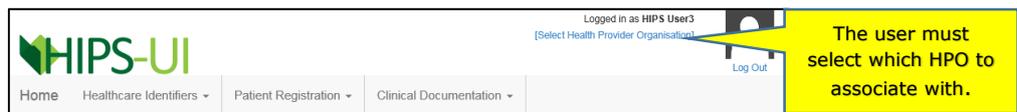
The user has the options of logging in to the eHISC-UI Web by entering a username and password and clicking Log in or by logging in with the user account that is currently logged onto the PC.

The Windows Identity is then validated against Active Directory to determine if the user can be authenticated.

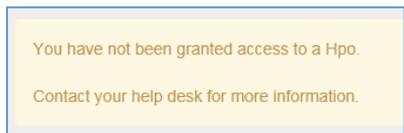
If Active Directory authentication passes then the user groups are retrieved for authorisation, the user's profile image (if available), and first name and surname from Active Directory. The user's associated HPO(s) are retrieved from the eHISC-Core database. If only one HPO is associated to the user then the eHISC-UI Web banner is updated to display the user's display name.



If the user has more than one HPO associated with them then the eHISC-UI Web banner is updated to display the user's name and profile image and a hyperlink for the user to click to select which HPO they want to be associated with for the current session.



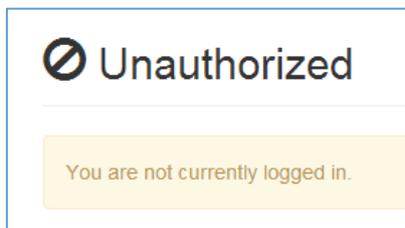
If the user has no HPOs associated with their access groups they will be presented with the following message and not be granted access to any of the eHISC-UI Web functions.



Once authenticated the user has the option of logging out of the eHISC-UI Web application by clicking on the Log Out link in the banner. This will log the user out of the session and return them to the Log in screen.

If the eHISC-UI Web application is inactive for a period of minutes specified in the web config file the user will be automatically logged out of the eHISC-UI Web application and the will need to log back in to continue.

If Active Directory authentication fails the user is presented with a page indicating they are unauthenticated.



## 2.7.2 Authorisation

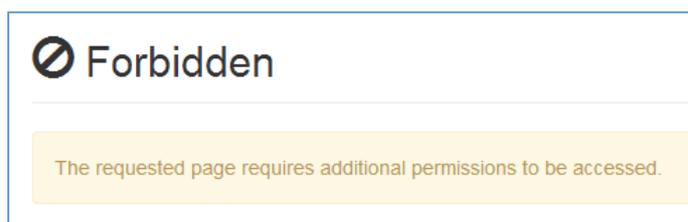
The MVC Authorization package enables security to be configured in a web.config configuration file on a per-controller or per-action basis, as well as additional policies such as 'deny anonymous users'. The configuration is loaded statically – updates to the configuration require an AppPool restart as would typically occur when changing the web.config file.

Typically this configuration will specify an Active Directory group that executing users must be a member of in order to view the desired path.

By default eHISC-UI Web specifies an MVC Authorization package which requires users to not be anonymous. However, this policy is overridden on error pages to allow anonymous users to see a user-friendly error if appropriate.

An additional feature of the MVC Authorization package is the inclusion of HTML Helpers that prevent rendering of Action Links (e.g. in the menu system) if the user has insufficient access.

If the user is authenticated via Active Directory, but not a member of the Active Directory group required to access the intended functionality (fails authorisation check), the user is presented with a page indicating they require additional permissions.



## 3. Appendix A

### 3.1 Assumptions

The following assumptions may affect the design specified in this document.

ID	Description
AS-1	All PCEHR document uploads for any healthcare provider organisation using eHISC occurs solely through eHISC. Documents are not uploaded, removed, or superseded on behalf of the healthcare provider organisation via any other system. Violations of this assumption would knowingly impact design decisions related to the use of the document local store in eHISC.
AS-2	The viewing of uploaded documents stored in eHISC via existing PCEHR Web Viewer functionality will not introduce additional CCA testing or functionality requirements. This specifically includes an assumption that viewing copies of the PCEHR uploaded documents in eHISC does not introduce new CCA requirements for the PCEHR Web Viewer functionality to support non-PCEHR documents. It also includes the assumption that rendering uploaded documents retrieved from eHISC using the NEHTA Stylesheet and PCEHR Web Viewer will be implicitly CCA compliant.
AS-3	The provision of in-application help text or instructions is not in scope.
AS-4	Applications using the embedded Patient Landing Page will implicitly leverage the PCEHR Web Viewer's CCA compliance.
AS-5	Group-level security at a per-page level will be sufficient to meet all security requirements.
AS-6	Allowing for jurisdiction-based field naming (e.g. different names for MRN, or "Facility" vs "Hospital") is not in scope.

### 3.2 Constraints

The following technical constraints apply to the functionality specified in this document.

ID	Description
CS-1	Applications embedding the Patient Landing Page are expected to do so in the context of a single window. Where possible, the Patient Landing Page functionality should therefore avoid opening new web browser windows or tabs.

### 3.3 Design Challenges

The following design challenges apply to the functionality specified in this document.

ID	Description
TDC-1	In order for the PCEHR Web Viewer screen to properly render and display a clinical document, the contents of the document CDA package (including embedded objects and attachments) must be “unwrapped” and cached on the web server so they can be referenced by relative location in the NEHTA-provided XSLT stylesheet.
TDC-2	Leveraging existing PCEHR Web Viewer functionality and adapting it for the purpose of viewing uploaded documents before removal may present some regression challenges with regard to enabling new functionality without impacting existing functionality. An example of this is that existing documents are loaded from the PCEHR rather than eHISC. Another example of this is the GainAccess functionality wrapping existing PCEHR Web Viewer functionality.
TDC-3	“Search by MRN” functionality allows users to search for patient records on MRN alone. As this feature is used in various functionality, it is possible for a patient to be retrieved who is not appropriate for the functionality (e.g. a patient without a PCEHR for the Remove Document feature). In these cases the application should handle the issue gracefully (e.g. showing zero documents to be removed on the Remove Document feature). If the Search by MRN finds no matching patient for the MRN provided an error should be presented so as to allow users to differentiate between mistyped/invalid MRNs and a correct MRN that is inappropriate for specific functionality.
TDC-4	Embedding the PCEHR Web Viewer as intended by the Patient Summary page functionality presents challenges as the existing functionality is designed for a fully-functional web browser. One specific issue that emerges from this difference is the opening of new tabs/windows which may present an issue for an embedded single-page application. See also the constraint CS-1.

### 3.4 Technical Design Decisions

The following design decisions apply to the functionality specified in this document.

ID	Description
TDD-1	URLs may contain potentially insecure object references. Unless explicitly indicated, no effort will be applied to assessing whether identifiers employed within URLs represent a security risk or to addressing any identified risk. This aligns with the statement of RR-2: XNFR-1, specifically with regard to OWASP 2013 Top 10 item A4 – “Insecure Direct Object References”.
TDD-2	Patient selection features will allow a “Search by MRN” function. “Search by MRN” will allow exact-match searching for patients across all time to find the patient with the specified MRN at the indicated Hospital. See also TDC-3 for related design challenges to this feature.