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## USG-NIVWCP

# National Image Viewing in the Welsh Clinical Portal

*An user guide for users of Mobility PACS viewing within the Welsh  
Clinical portal*

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# 1 DOCUMENT HISTORY

## 1.1 Revision History

Date	Version	Author	Revision Summary
08/04/2020	1	Shane Herat	Finalised Version

## 1.2 Reviewers

This document requires the following reviews:

Date	Version	Name	Position
24/03/2020	0.5	Welsh Clinical Informatics Council	Key users

## 1.3 Authorisation

Signing of this document indicates acceptance of its contents.

Author's Name:	
Role:	
Signature:	Date:

Approver's Name:	
Role:	
Signature:	Date:

## 1.4 Document Location

Type	Location
Electronic	

## 2 PURPOSE

Welsh Clinical Portal (WCP) users will now be able to view radiology images from other Health Boards as well as their own. As long as a radiology report exists for the patient within the Welsh Records and Reports Service (WRRS) and an existing image is associated with the report then users can now view the image associated with the report in a modal window.

The only limit to viewing a reports associated image will be that the report exists in WRRS and therefore WCP. WCP utilises Fuji mobility servers in each Health board to allow users to view the image, as a zero-footprint browser, users will be able to view images without the need to install a local viewing software with little impact on the bandwidth available within the Health Board's networks. This document provides users with a guide on how to use the solution within WCP as well as outlining some of the key functionality of mobility image viewing.

## 3 SCOPE

This user guide covers the use of the Welsh Clinical Portal and the Mobility PACS viewer to view radiology images.

### 3.1 Key Points to Note

- In order to see an image via WCP a Radiology report must be available via WRRS.
- As a zero-footprint browser, users will not need a client installed to use Mobility.
- Each Mobility Server is connected to the specific Local Health Board/Trust PACS Database **when using mobility you will see images located within that specific database under that RadIS Patient ID**, in order to view images from another Health Board a user will need to close the mobility window and radiology report and open the report for the image they wish to see.
- Once the Welsh Image Archive Service is fully populated the Health Board/Trust specific limitation will be removed, users will be able to view all related studies for a patient regardless of where they were taken in the one mobility instance.

## 4 ROLES AND RESPONSIBILITIES

N/A

## 5 REFERENCES

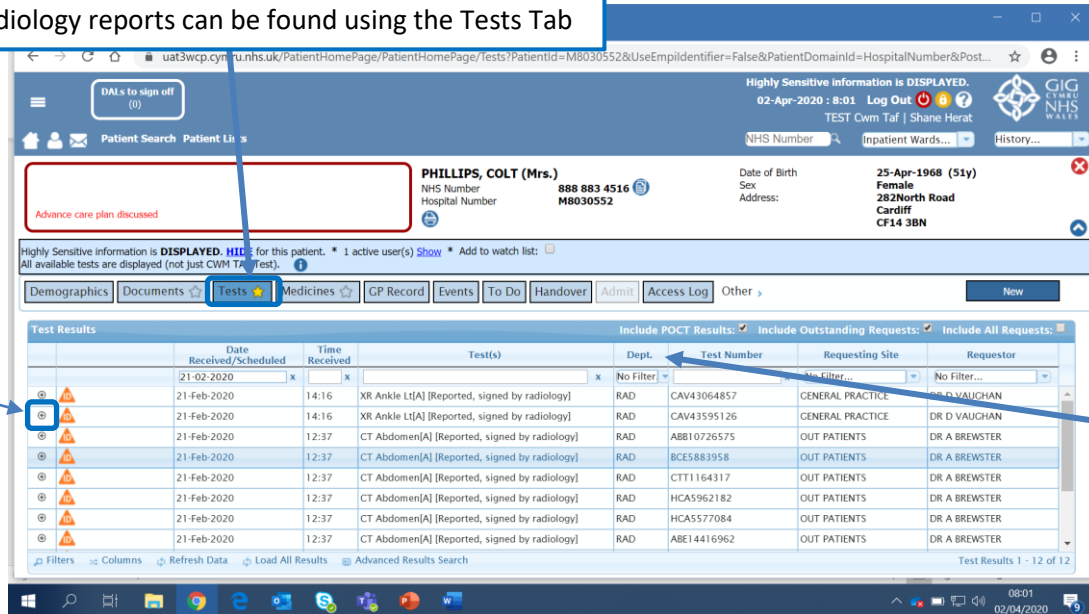
Document	Version

## 6 PROCEDURE

### 6.1 Viewing within WCP

- Navigate to Tests for the patient desired
- Select the Radiology Report needed by using the open button

Radiology reports can be found using the Tests Tab

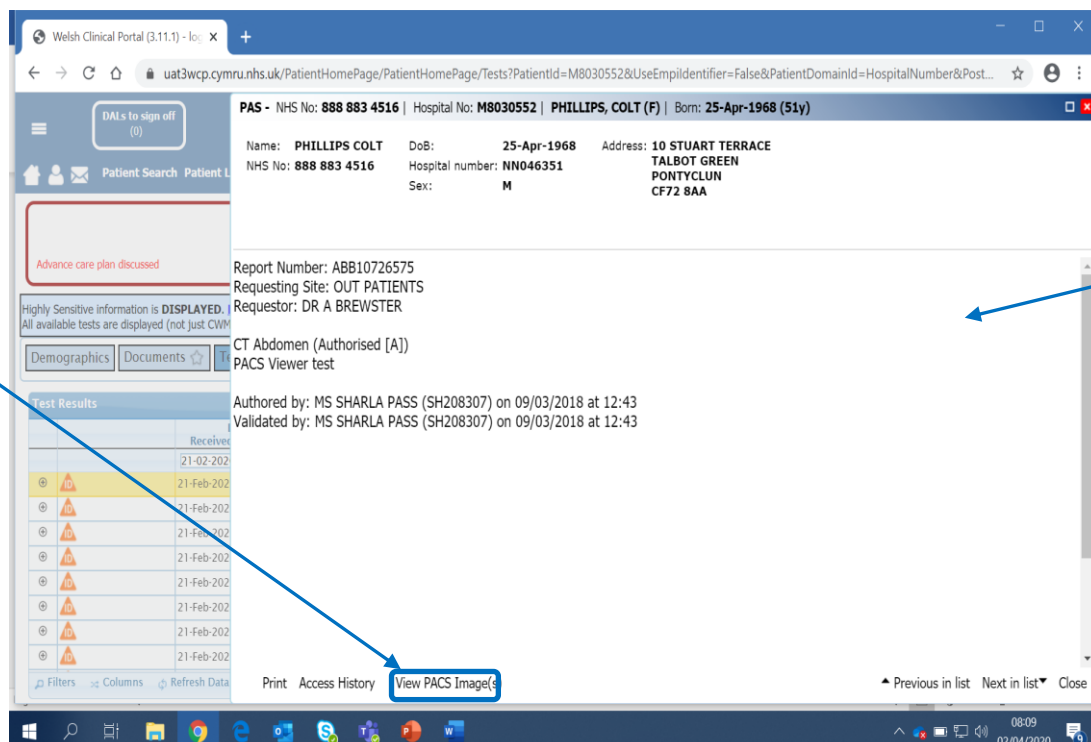


The screenshot shows the 'Tests' tab in the WCP interface. A table lists various tests performed on 21-Feb-2020, including X-ray and CT scans. The 'Dept.' column shows 'RAD' for all entries. A callout box points to the 'Open' button (a small circle with a plus sign) in the first row of the table. Another callout box points to the 'Test Number' column header.

Open the desired report by selecting the open button

Test results can be sorted by any of the columns, Radiology reports will be shown as RAD in the Dept. column.

- A separate modal window will open with the selected Radiology report displayed



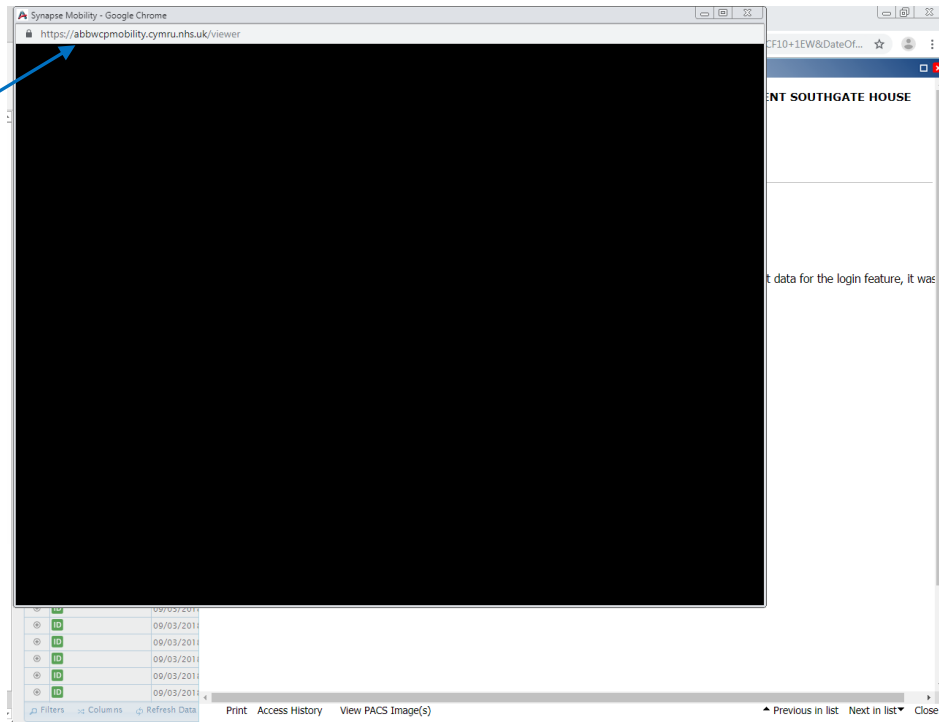
The screenshot shows a modal window displaying a detailed radiology report. The report includes patient details (Name: PHILLIPS COLT, NHS No: 888 883 4516, Date of Birth: 25-Apr-1968), report details (Report Number: ABB10726575, Requesting Site: OUT PATIENTS, Receptor: DR A BREWSTER), and the test result (CT Abdomen [A] PACS Viewer test). A callout box points to the 'VIEW PACS IMAGE' button at the bottom of the report. Another callout box points to the report text area.

To see the associated image select **VIEW PACS IMAGE** at the bottom of the report

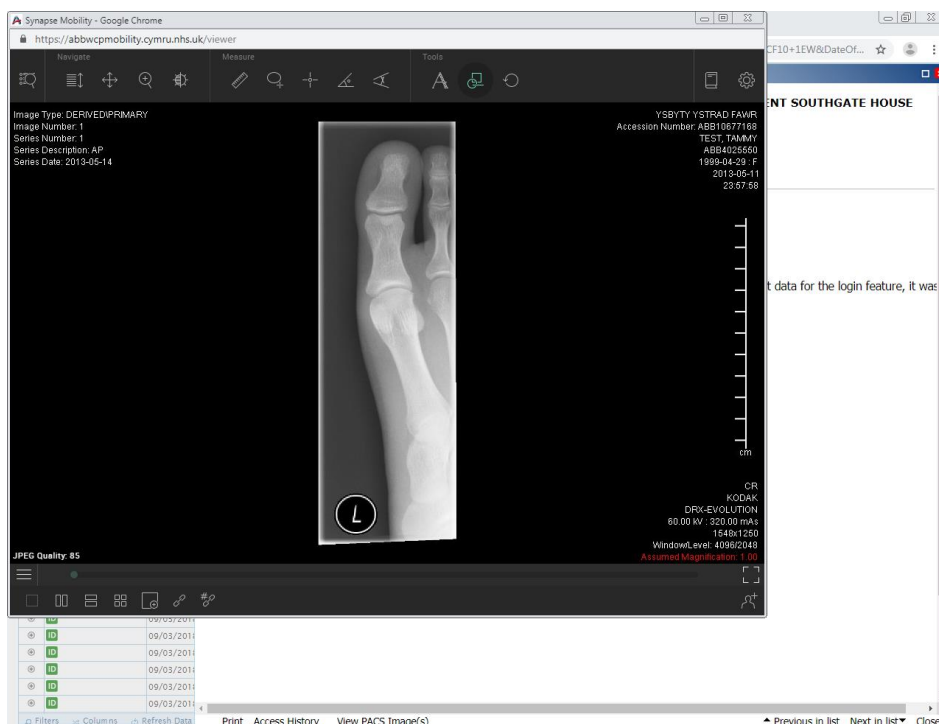
The report text will be displayed

- To see the associated image for a report select the “View PACS button at the bottom of the report
- A new modal window for Mobility will open directing to the relevant mobility server.

The Mobility instance (HB/trust area) you are using will be displayed in the URL



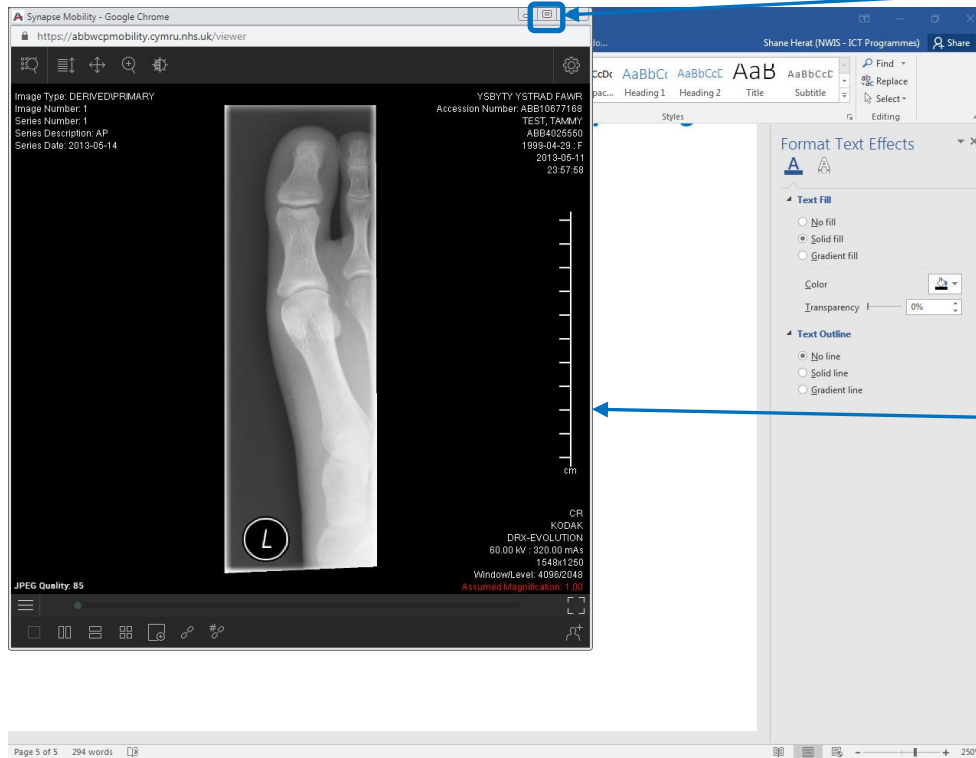
- The image for the Accession number in the report will then be displayed



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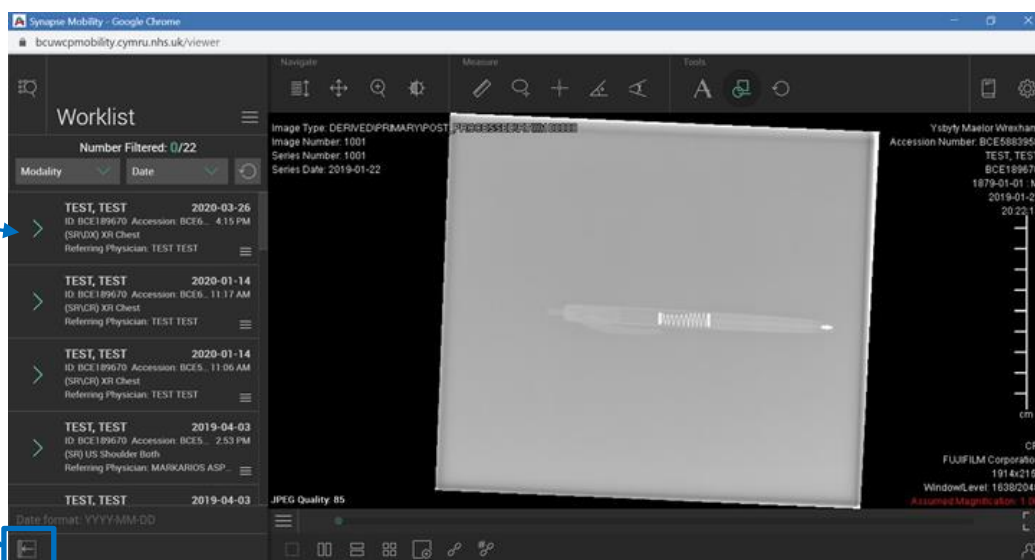
- As a modal window, you can adjust the size as needed by clicking on the edge and expanding/contracting as needed. It is recommended that full screen is used.



Select Maximise to go full screen with browser

Select anywhere on the edge to change the size of the window by dragging to the desired size

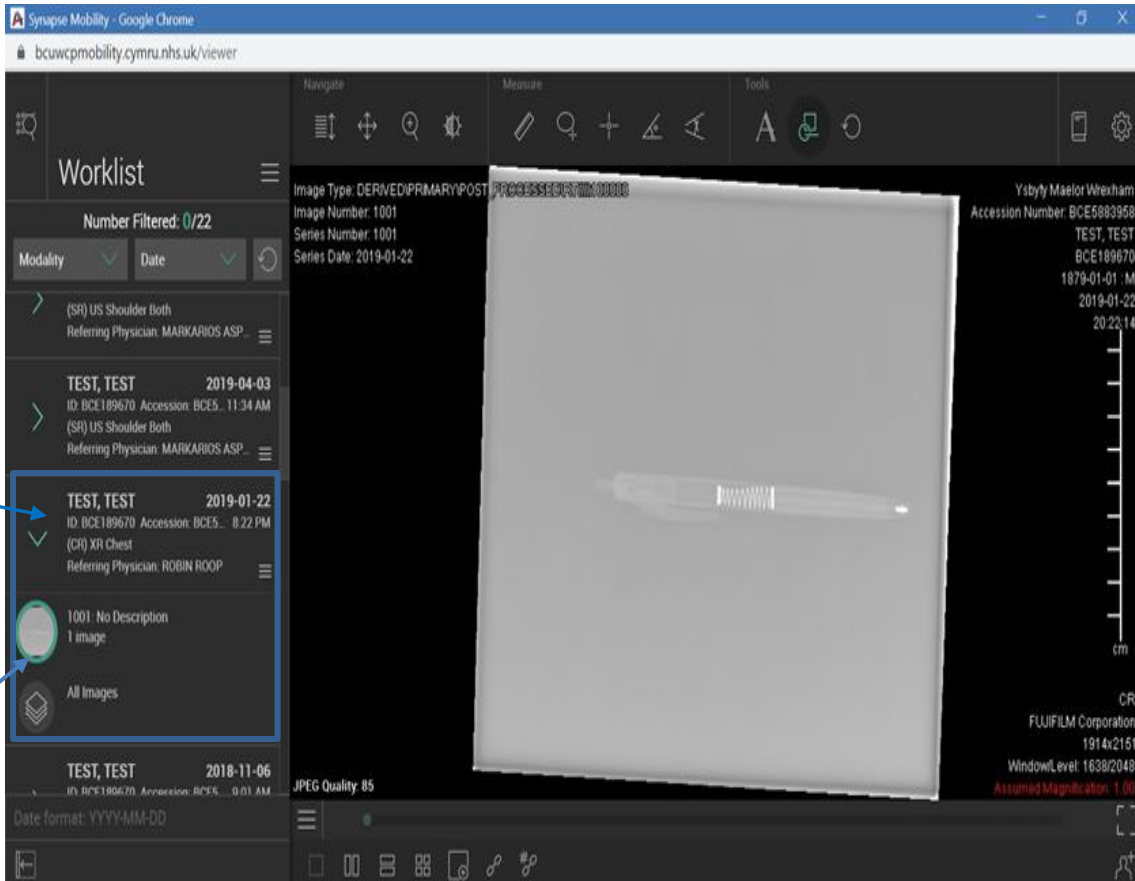
- Mobility will automatically load all related studies for that RadIS Patient ID found in the local Health Boards PACS database. You can see the worklist automatically by going full screen.



Worklist with related studies

Expand or collapse worklist

- Studies are listed in chronological order, you can find the study associated with the WCP Radiology report as it will be automatically expanded



Study loaded from WCP will be expanded

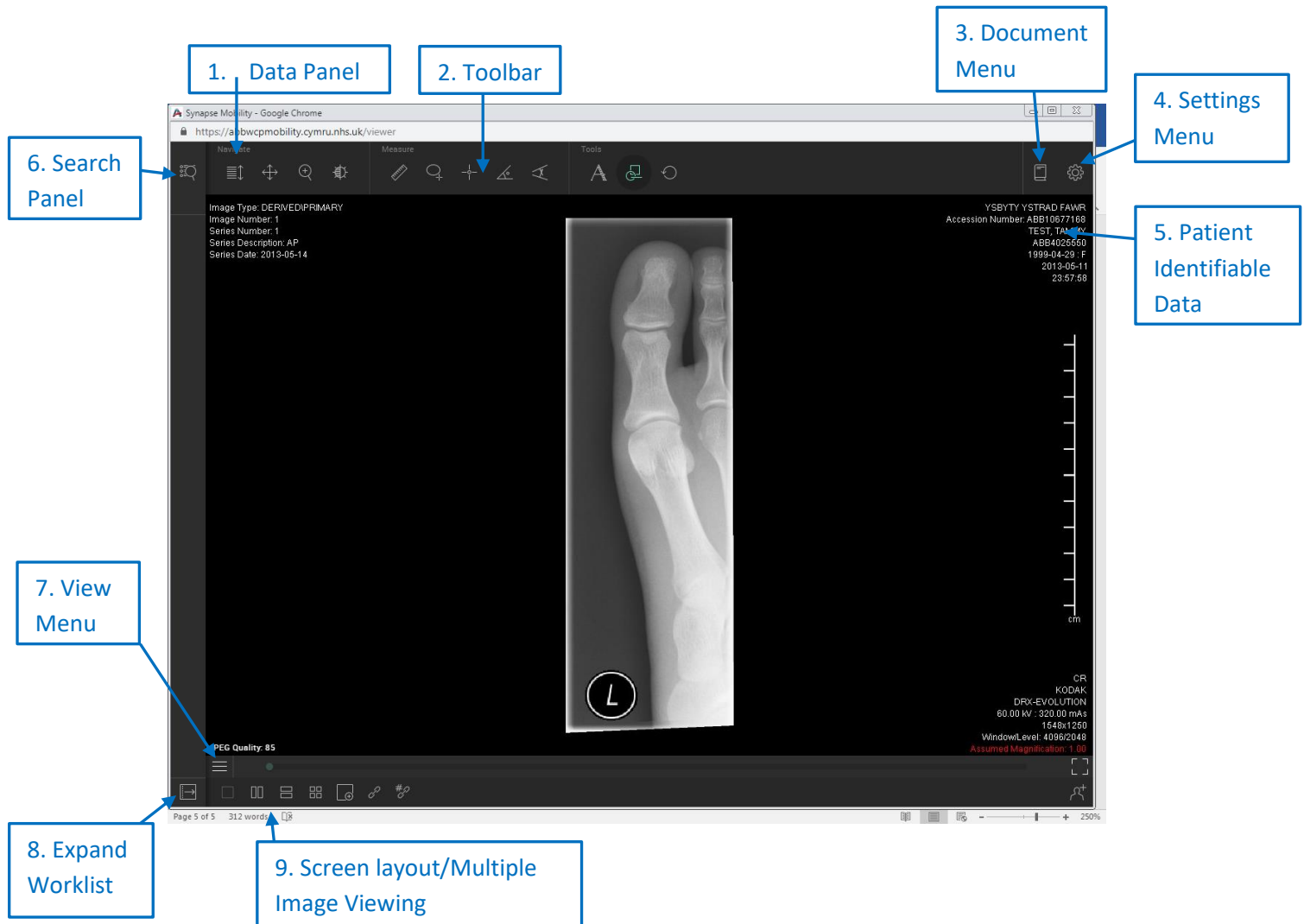
A green circle around the image confirms it is loaded. Double click on the image if it is not

**Note: Only related studies under the same RadIS patient ID are automatically displayed.**



## 6.2 Mobility Overview

The following section provides an overview of Mobility pertinent to a WCP user.



### 1. Data Panel – Tools to help navigate



Scroll through the images in the series



Pan or move the image



Zoom in and out of the image



Adjust the window level

## 2. Toolbar – Measurements, annotation and display



Measure the distance between two points



Measure within an ellipsoid region of interest (ROI)



Measure the signal intensity of a selected pixel



Measure the angle between defined segments



Add annotations to the image



Display information from other systems as GSPS information, if applicable



Reset image view

## 3. Document Menu



Access User Guide, Hotkeys and information about installed version

## 4. Settings



Access display settings and logout

## 5. Patient Identifiable Data

Will provide details on the image including, site where the image was taken, Patient name, DOB, and Accession number.

## 6. Search Panel

Will show results for accession number and allow search for patient for that PACS database

## 7. View Menu

Change the view where applicable (see Views section)



## 8. Expand worklist

Expand the worklist to see images available. (See Worklist section). Note – must be in Full screen to see this.

## 9. Screen layout/Multiple Image Viewing



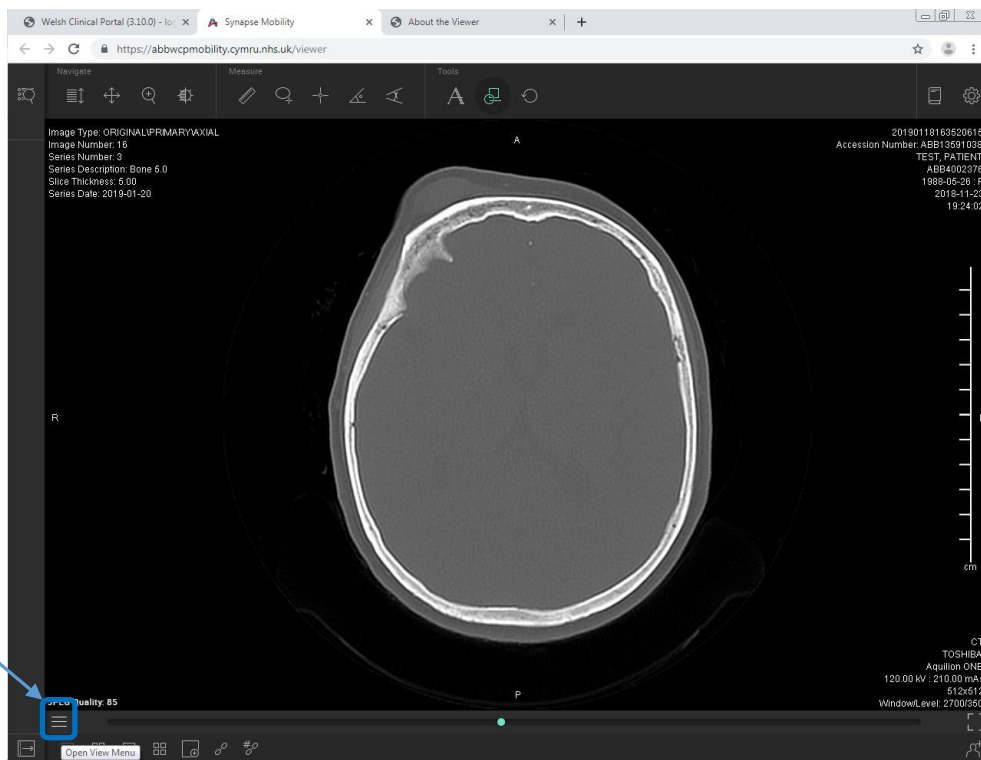
View multiple images by choosing the layout.

## 6.3 Views

There are three different view modes to view data – 2D, MIP/MPR and 3D. Images are initially displayed in the 2D view mode, but you can switch view modes at any time where applicable.

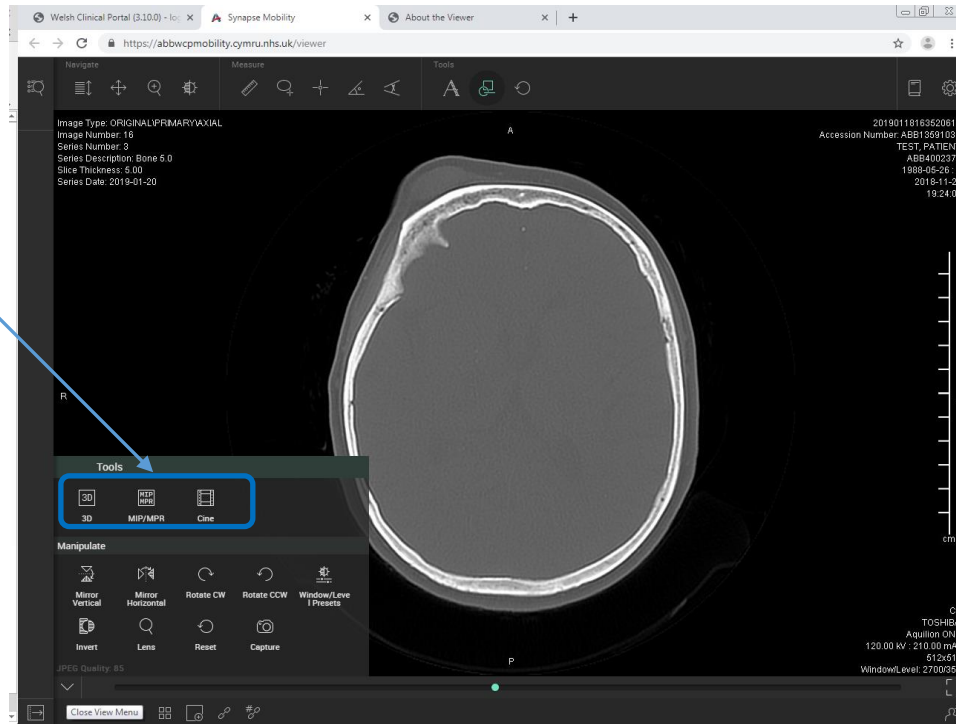
### 6.3.1 Switch view modes

- Select the View Menu button



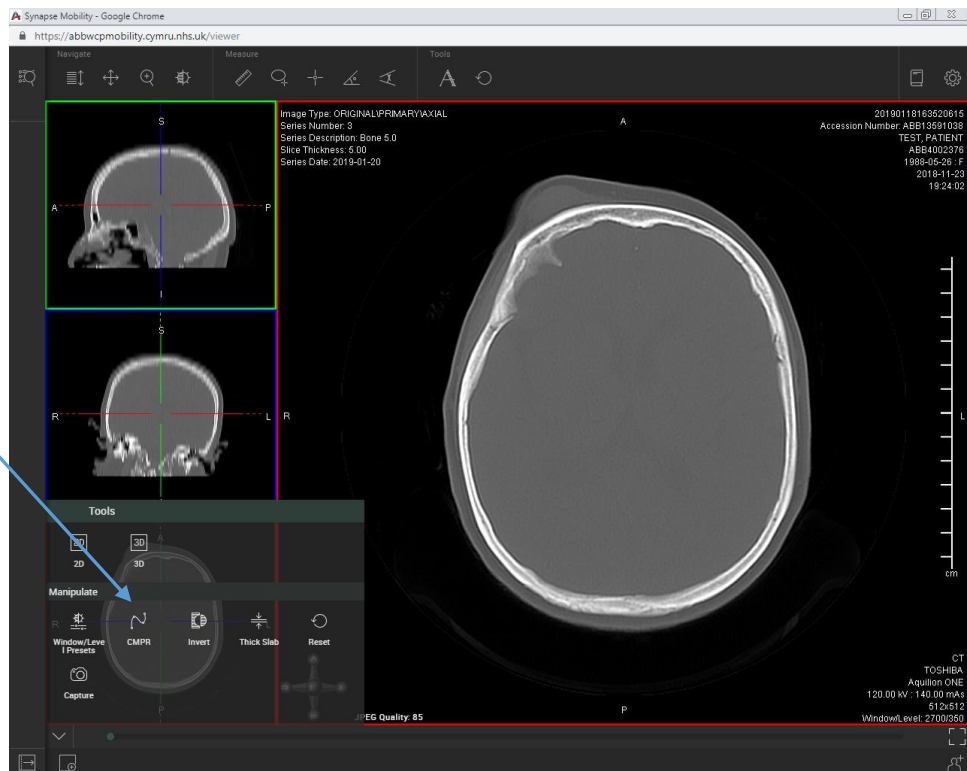
- Select the View mode needed

Select a view mode from the view menu













- Use the view menu for additional manipulation tools

Additional Manipulation Tools based on view



## Manipulate tools

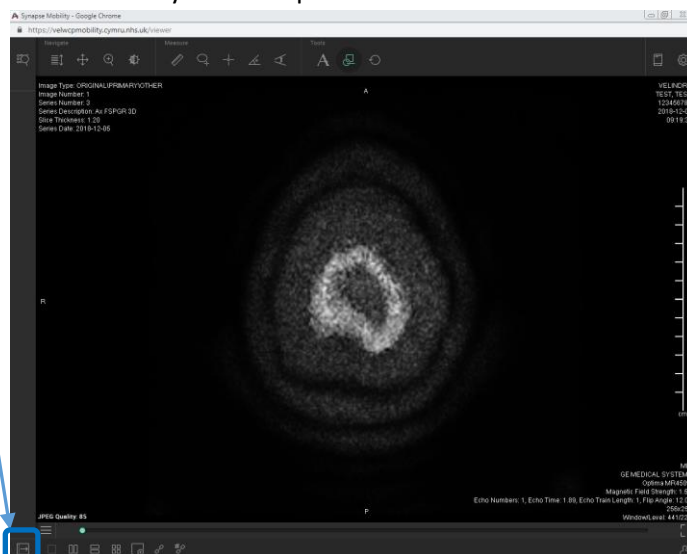
	Mirrors the image vertically (2D only)
	Mirrors the image horizontally (2D only)
	Rotate Clockwise (2D only)
	Rotate Counter Clockwise (2D only)
	Adjust the window level or use pre-sets
	Invert the image
	Magnify the image (2D only)
	View thicker slab (portion) of image (MIP/MPR only)
	Cut away obscuring layers from image (3D only)
	Create curved MPR (MIP/MPR only)

## 6.4 Worklist and Image comparison

Mobility will load all related studies located in that local Trust/Health board's PACS. The worklist can be used to view the images either separately or as multi image viewing. Note the images displayed will be for those associated with the particular RadIS Patient and is currently limited to that Health Board's viewer, any other images for a patient from other Health Board PACS will be available via WCP test results.

- In full screen you can expand the worklist

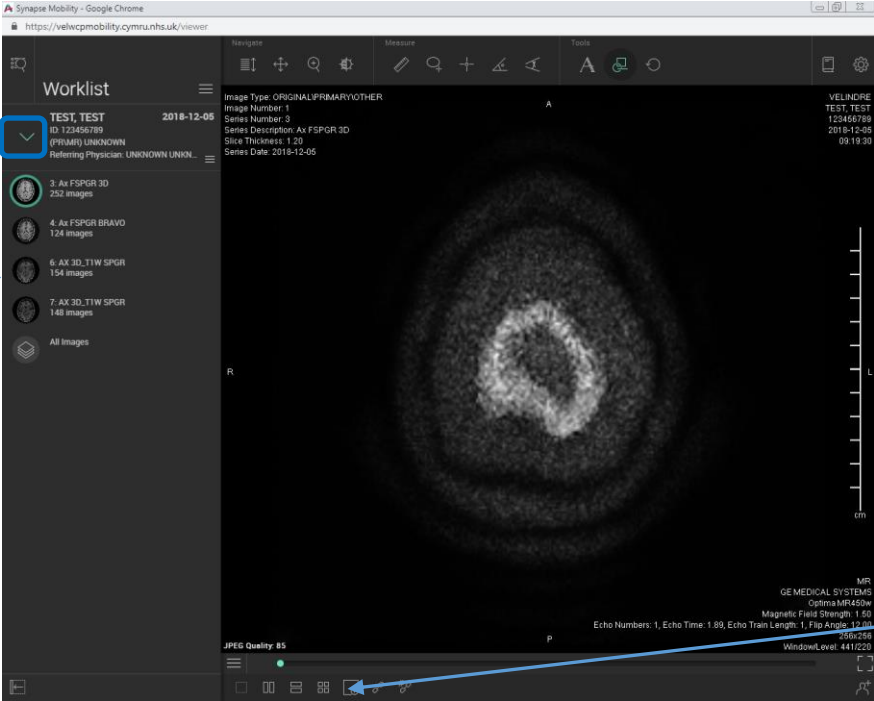
Chose  
Expand  
Worklist



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- From the worklist you can select which image you wish to see or use the layout to view multiple images

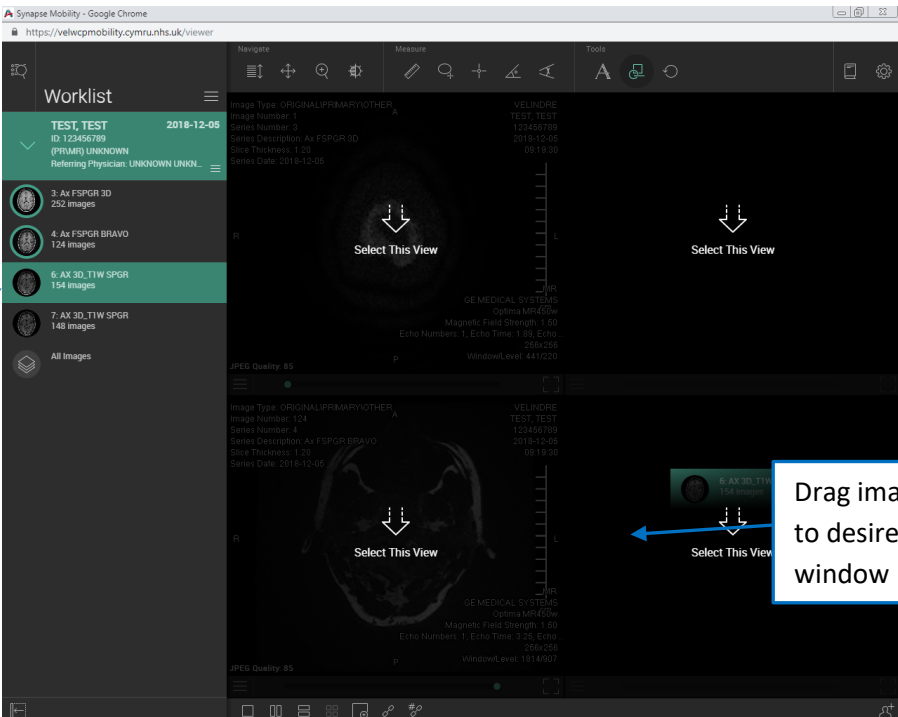


Select arrow to see images in study

Select images wanted

Use the layout options to view multiple images at once

- With multiple layouts you can drag and drop images to view side by side



Select and hold image wanted

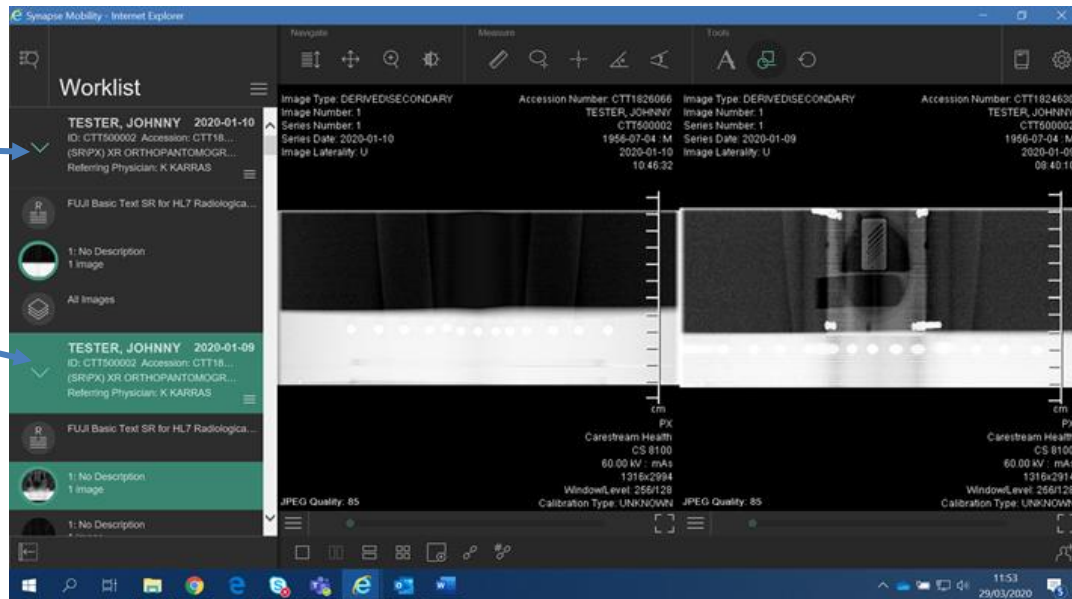
A green circle around the image confirms it is loaded. Double click on the image if it is not

Drag image to desired window



## 6.5 Multiple study comparison

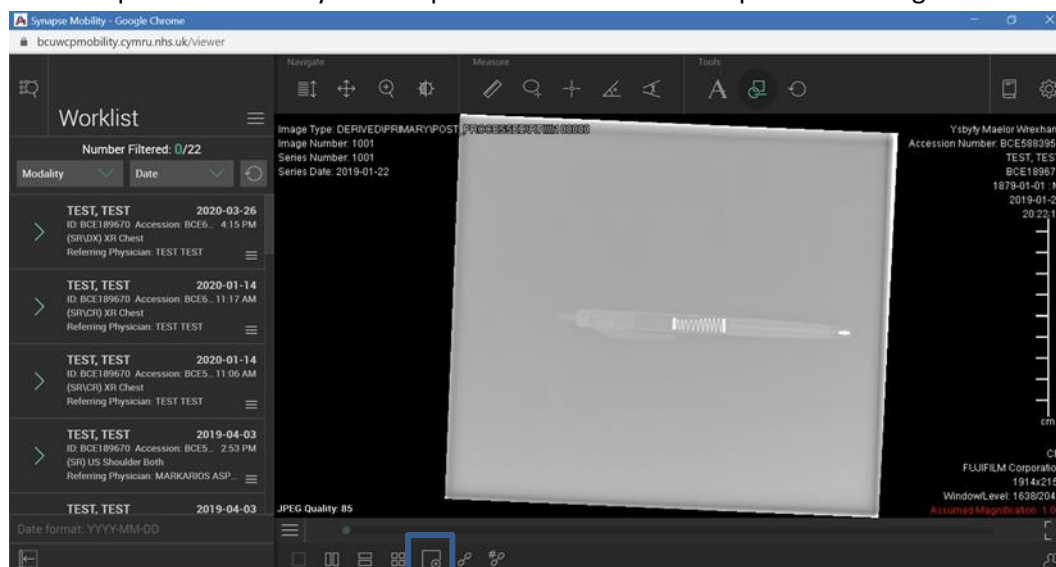
- Access any images from any study associated with the RadIS patient ID within the worklist, by expanding the study, you can compare images from different studies, use the layout buttons to compare



- If the study does not expand or collapse relaunch mobility to ensure connectivity

## 6.6 New Comparison Window

- For multiple screen users you can open a new screen for comparison viewing



Select New Window  
to open a  
comparison window

## 6.7 Mobility Instances

Each PACS instance in Wales has a corresponding Mobility instance to view the PACS images within that PACS database. Users can determine what Mobility instance they are in according to the prefix of the accession number or the URL of the viewer

PACS DATABASE	URL	ACCESSION NUMBER PREFIX
ANEURIN BEVAN UHB	syn-mobility- <b>abhb</b> .cymru.nhs.uk	ABBxxxxxxx
BETSI CADWALADER UHB	syn-mobility- <b>bcu</b> .cymru.nhs.uk:	BCUxxxxxxx BCExxxxxxx BCWxxxxxxx
CARDIFF & VALE UHB	syn <b>cav</b> mob.cymru.nhs.uk:	CAVxxxxxxx
CWM TAF MORGANNWG UHB	syn-mobility- <b>cthb</b> .cymru.nhs.uk	CTTxxxxxxx CTSxxxxxxx CTNxxxxxxx
HYWEL DDA UHB	syn-mobility- <b>hwyeldda</b> .cymru.nhs.uk	HDDxxxxxxx HCExxxxxxx HPExxxxxxx HCAxxxxxxx
SWANSEA BAY UHB (FORMERLY ABMU)	syn-mobility- <b>abmu</b> .cymru.nhs.uk	ABExxxxxxx ABMxxxxxxx
VELINDRE TRUST	syn-mobility- <b>vel</b> .cymru.nhs.uk:	VELxxxxxxx

## 7 TROUBLESHOOTING

If you are experiencing issues with Mobility, we recommend users refer to the guide to help gain familiarity with the solutions user interface however, here are some common troubleshooting steps.

### 7.1.1 Only the image loads, I can't find the other images in the study

Mobility will load as a modal window with the first image presented. For ease, we recommend that you make the browser window full screen to see the worklist, the worklist will display all images in the study and allow for you to search related studies (see [Worklist](#)). If the worklist is not displayed select the icon in the bottom left corner to expand the worklist.

### 7.1.2 I can't find related studies for the Patient

Make sure you have the worklist open (full screen browser). If the worklist is not displayed select the icon in the bottom left corner to expand the worklist.

You will find related studies for that patient if the following two parameters are met:

(1) There are other studies for that patient within that particular Health board's PACS database



(2) The studies are under the same RadIS patient ID. If you want to see other images for the patient, that do not conform to the two parameters, consider using another radiology report in WCP for that patient.

### 7.1.3 Mobility has frozen or is unresponsive

As a browser solution you may, on rare occasions, experience a network error or unresponsiveness that could be caused by network timeout or security protocols activating. Please close Mobility and relaunch via the radiology report in WCP. If the problem persists, please raise a call with your local service desk for the matter to be reviewed.

### 7.1.4 I get a HTTP error

As a browser solution you may, on rare occasions, experience a network error or unresponsiveness that could be caused by network issues or security protocols activating. Please close Mobility and relaunch via the radiology report in WCP. If the problem persists, please raise a call with your local service desk for the matter to be reviewed.

### 7.1.5 I can't expand or collapse the study in worklist

If you have not used the worklist for a period of time, network connectivity may have been lost or security protocols may have activated. If you cannot expand or collapse studies within the worklist please close mobility and relaunch via the radiology report in WCP. If the problem persists, please raise a call with your local service desk for the matter to be resolved.

## 8 DEFINITIONS

Term	Definition
WCP	Welsh Clinical Portal
PACS	Picture Archive Communication System
WRRS	Welsh Results & Reporting Service

## 9 ATTACHMENTS

N/A