DATABASE & METHODS CYBERSEMINAR SERIES

Session 11:

Applications for Joint Longitudinal Viewer (JLV) in Research: Introduction

July 10, 2023

Hosted by VIReC

Amber Lane

Research Health Science Specialist, VA Eastern Colorado Healthcare System

Reese Omizo, MD

Clinical Informaticist & Primary Care Physician, VA Pacific Islands Healthcare System

DATABASE & METHODS CYBERSEMINAR SERIES

Informational seminars to help VA researchers access and use VA databases.

Sessions cover…

- VA data sources & data access systems
- Application of VA data to research and quality improvement questions
- Limitations of secondary data use
- Resources to support VA data use

UPCOMING DATABASE & METHODS SESSIONS

First Monday of the month | 1:00pm-2:00pm ET

Date	Topic
7/24/23	Applications for Joint Longitudinal Viewer (JLV) in Research: Day to Day Uses

Visit the VIReC Database & Methods Cyberseminar page for more information & registration links.

Visit HSR&D's VIReC Cyberseminar Archive page to watch previous sessions.

Where can I download a copy of the slides?

SAMPLE EMAIL

A Practical Approach to Working with VA-Purchased Community Care Data

Thursday, October 13, 2022
2:00 PM | (UTC-04:00) Eastern Time (US & Canada) | 1 hr

Please download today's slides
Please click here for today's live captions

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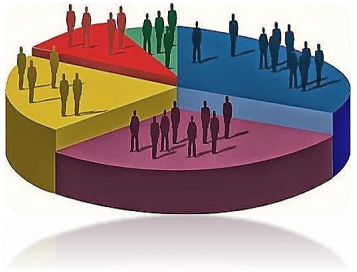
Poll #1:

*What is your primary **role** in projects using VA data?*

- Investigator, PI, Co-I
- Statistician, methodologist, biostatistician
- Data manager, analyst, or programmer
- Project coordinator
- Other – please describe via the chat function



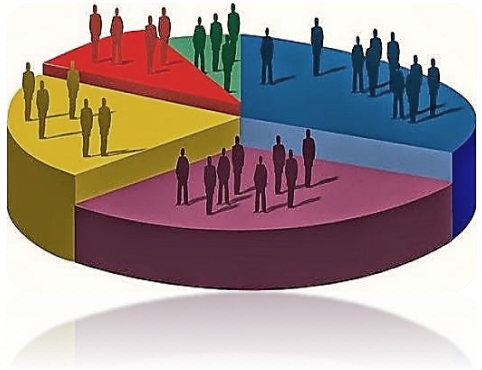
Poll #2:

How many years of experience working with VA data?

- None – I'm brand new to this!
- One year or less
- More than 1, less than 3 years
- At least 3, less than 7 years
- At least 7, less than 10 years
- 10 years or more

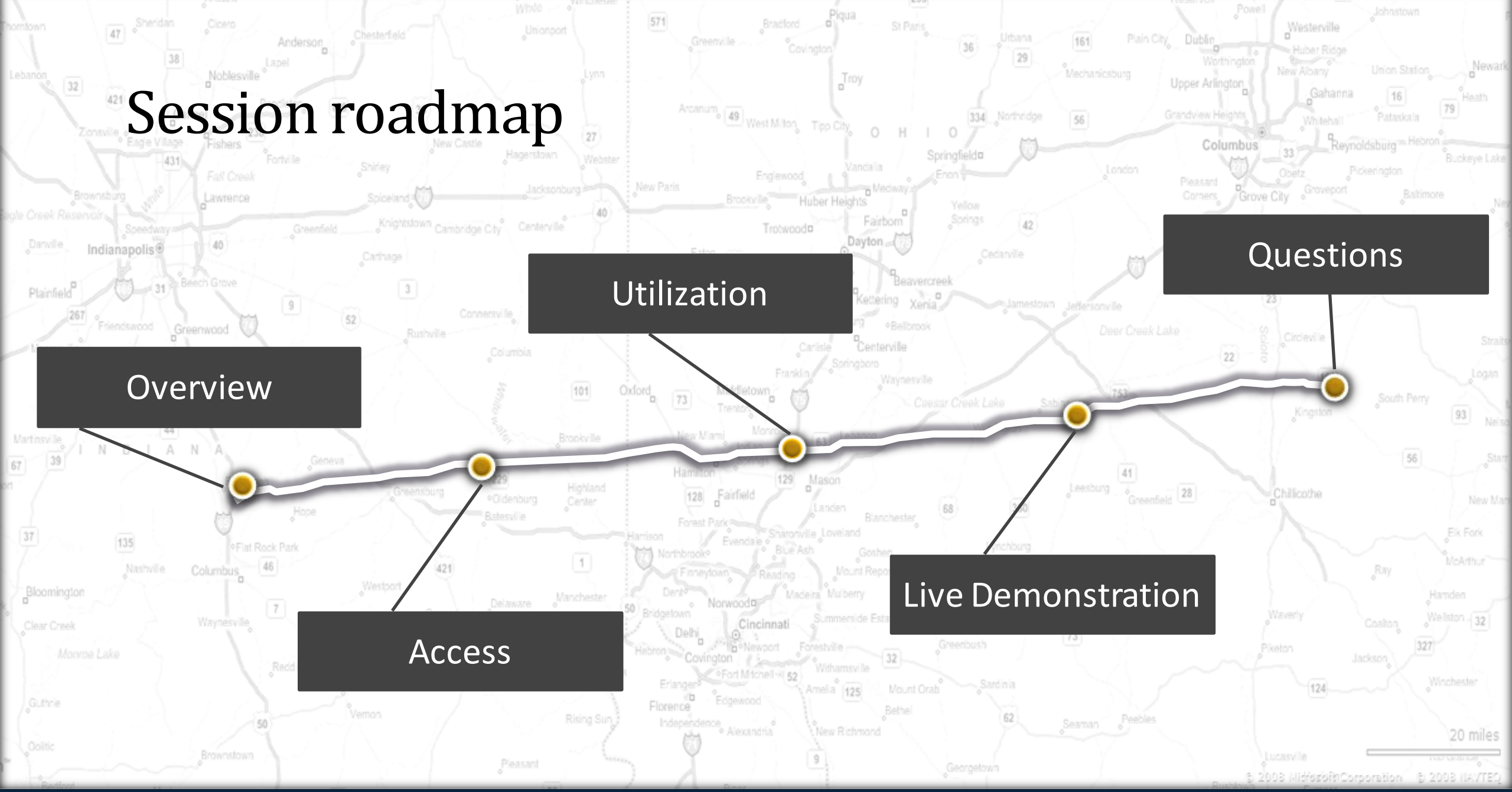
Poll #3:

How long have been using JLV?

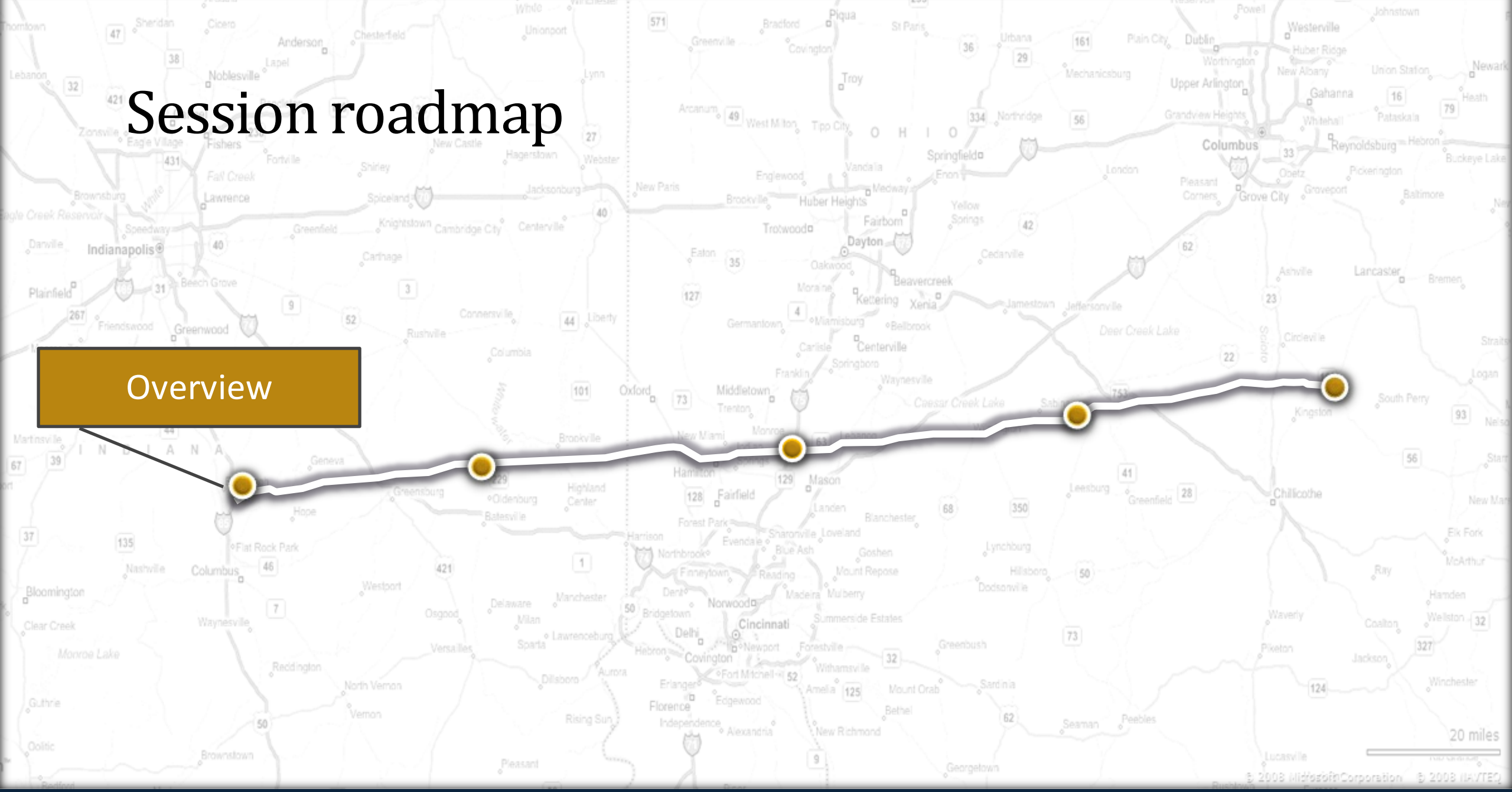


- None – I'm brand new to this!
- One year or less
- More than 1, less than 3 years
- At least 3, less than 7 years
- At least 7, less than 10 years
- 10 years or more

Session roadmap



Session roadmap



Joint Longitudinal Viewer (JLV): What is it?

JLV provides a web-based integrated read-only view of health records from Department of Defense (DoD), VA and Community Partner sources

- Comprehensive, longitudinal record from all sources, sites and systems where a patient has received care
- Co-developed by VA and the DoD
- System of Systems - Dependent upon other systems and services in the interoperability ecosystem

JLV Features

- **Customizable by each user** - Enables viewing of multiple data types at once, creating and saving of custom views, and sorting and filtering - supports efficiency at individual workflow level
- **National level patient search for all users** – not limited to viewing only locally registered patients
- **Certain data mapped to national standards** supporting semantic interoperability

Information from JLV Resources training PowerPoint "JLV_Office_Hours_2023_May 23

Acronym list for next slide

- **VistA-** Veterans Health Information Systems and Technology Architecture
- **CPRS-** Computerized Patient Record System
- **FEHR-** Federal Electronic Health Record
- **FHIR-** Fast Healthcare Interoperability Resources
- **API-** Application Programming Interface
- **MHS-** Military Health System
- **EHRM-** Electronic Health Record Modernization
- **CAMM-** CareAware® MultiMedia
- **AHLTA-** Armed Forces Health Longitudinal Technology Application
- **CHCS-** Composite Health Care System
- **HAIMS-** Healthcare Artifact & Image Management System
- **TMDS-** Theater Medical Data Store
- **FHIE-** Federal Health Information Exchange
- **ACS DAL-** Agile Core Services Data Access Layer
- **ILER-** Individual Longitudinal Exposure Record
- **ECIA-** Enterprise Central Image Archive

JLV integrates records from many systems on a single screen*

Department of Veterans Affairs

- VistA /CPRS
- VistA Imaging
- MUSE™ Cardiology Studies

Department of Defense

- AHLTA/CHCS
- Essentris®
- HAIMS
- TMDS
- Deployment Forms systems (FHIE, ACS DAL)
- ILER
- ECIA

Cerner Millennium (FEHR)

- Cerner FHIR APIs
  - MHS GENESIS
  - VA EHRM
- Cerner CAMM Imaging

Private Sector

Joint Health Information Exchange (JHIE)

- 271 partners - Click here for list (>40,000 hospitals, clinics, etc.)
- 34,000+ CommonWell provider sites

* Slide from JLV Resources training PowerPoint "JLV_Office_Hours_2023_May 23

Highlighted systems can only be viewed by VA staff within JLV

Department of Veterans Affairs

- VistA/CPRS
- VistA Imaging
- MUSE™ Cardiology Studies

Department of Defense

- AHLTA/CHCS
- Essentris®
- HAIMS
- TMDS
- Deployment Forms systems (FHIE, ACS DAL)
- ILER
- ECIA

Cerner Millennium (FEHR)

- Cerner FHIR APIs
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  - VA EHRM
- Cerner CAMM Imaging

Private Sector

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FAQ: How are CAPRI and CPRS different from JLV?

- CAPRI (Compensation and Pension Record Interchange) is read-only access to the VistA EHR (Electronic Health Record), with more functionality than JLV for looking at benefits that Veterans applied for/received
- CPRS is the standard EHR which is in the process of being replaced by Millennium
  - Has write capabilities

FAQ:
Can JLV be used to generate data for multiple patients at one time?

- No. JLV gathers data from all connected systems for a **single** patient
- JLV cannot gather the same data element from multiple patients at one time
- JLV does not generate patient lists

  - Generating patient lists requires aggregation of full databases in a data warehouse like CDW (Corporate Data Warehouse)

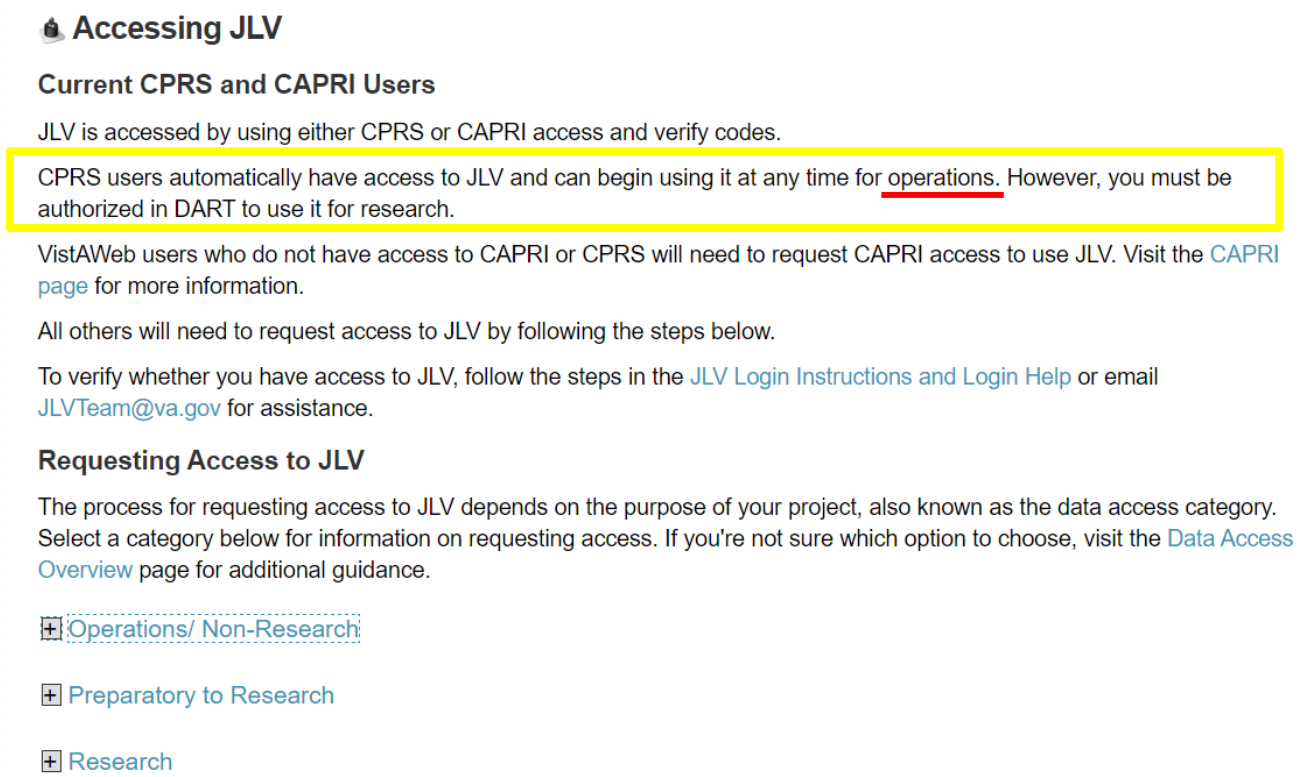
- For more information about CDW, please visit: https://vaww.virec.research.va.gov/CDW/Overview.htm

Session roadmap

Gaining Access to JLV

- Type of use = Type of access needed
  - Three types of use:
    - Operation/Non-research
    - Preparatory to Research
    - Research

- Detailed instructions for JLV access: https://vaww.vhadataportal.med.va.gov/ToolsApplications/JLV.aspx#transition



Accessing JLV

Current CPRS and CAPRI Users

JLV is accessed by using either CPRS or CAPRI access and verify codes.

CPRS users automatically have access to JLV and can begin using it at any time for operations. However, you must be authorized in DART to use it for research.

VistAWeb users who do not have access to CAPRI or CPRS will need to request CAPRI access to use JLV. Visit the CAPRI page for more information.

All others will need to request access to JLV by following the steps below.

To verify whether you have access to JLV, follow the steps in the JLV Login Instructions and Login Help or email JLVTeam@va.gov for assistance.

Requesting Access to JLV

The process for requesting access to JLV depends on the purpose of your project, also known as the data access category. Select a category below for information on requesting access. If you're not sure which option to choose, visit the Data Access Overview page for additional guidance.

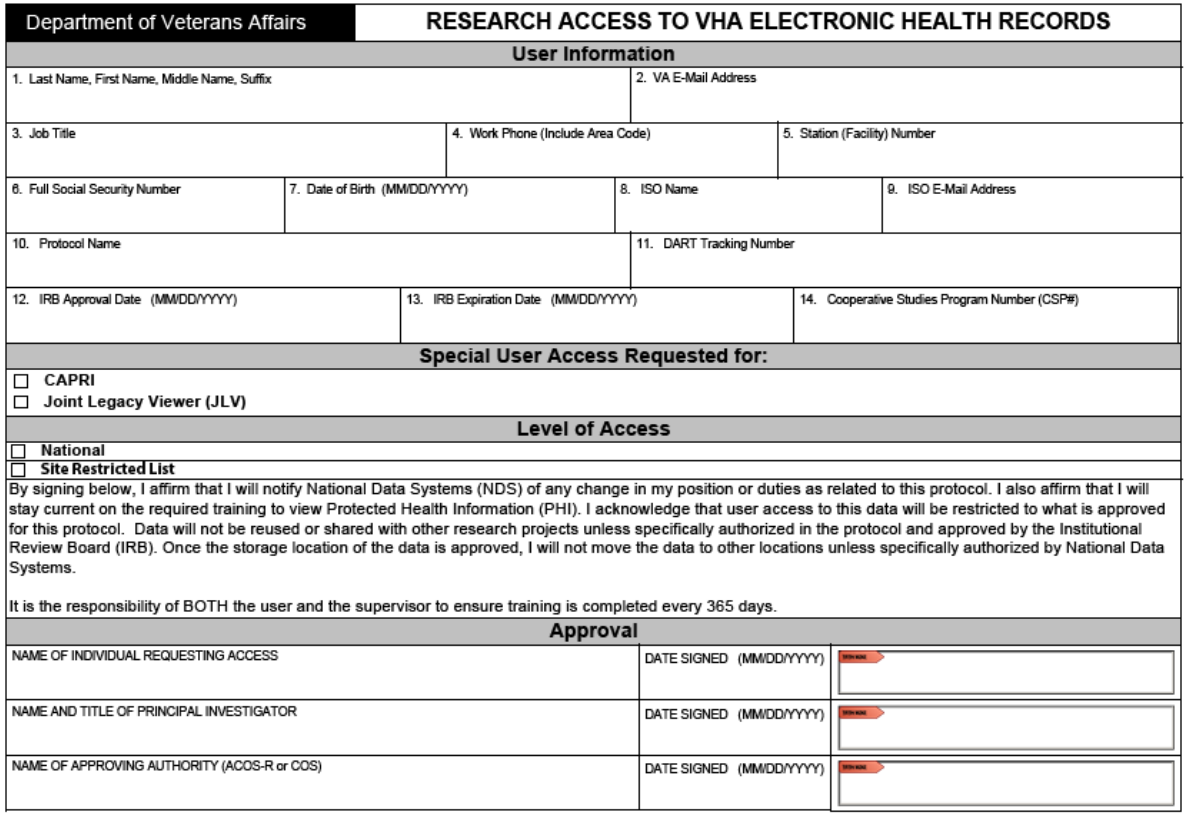
⊞ Operations/ Non-Research

⊞ Preparatory to Research

⊞ Research

Data Access Request Tracker (DART)

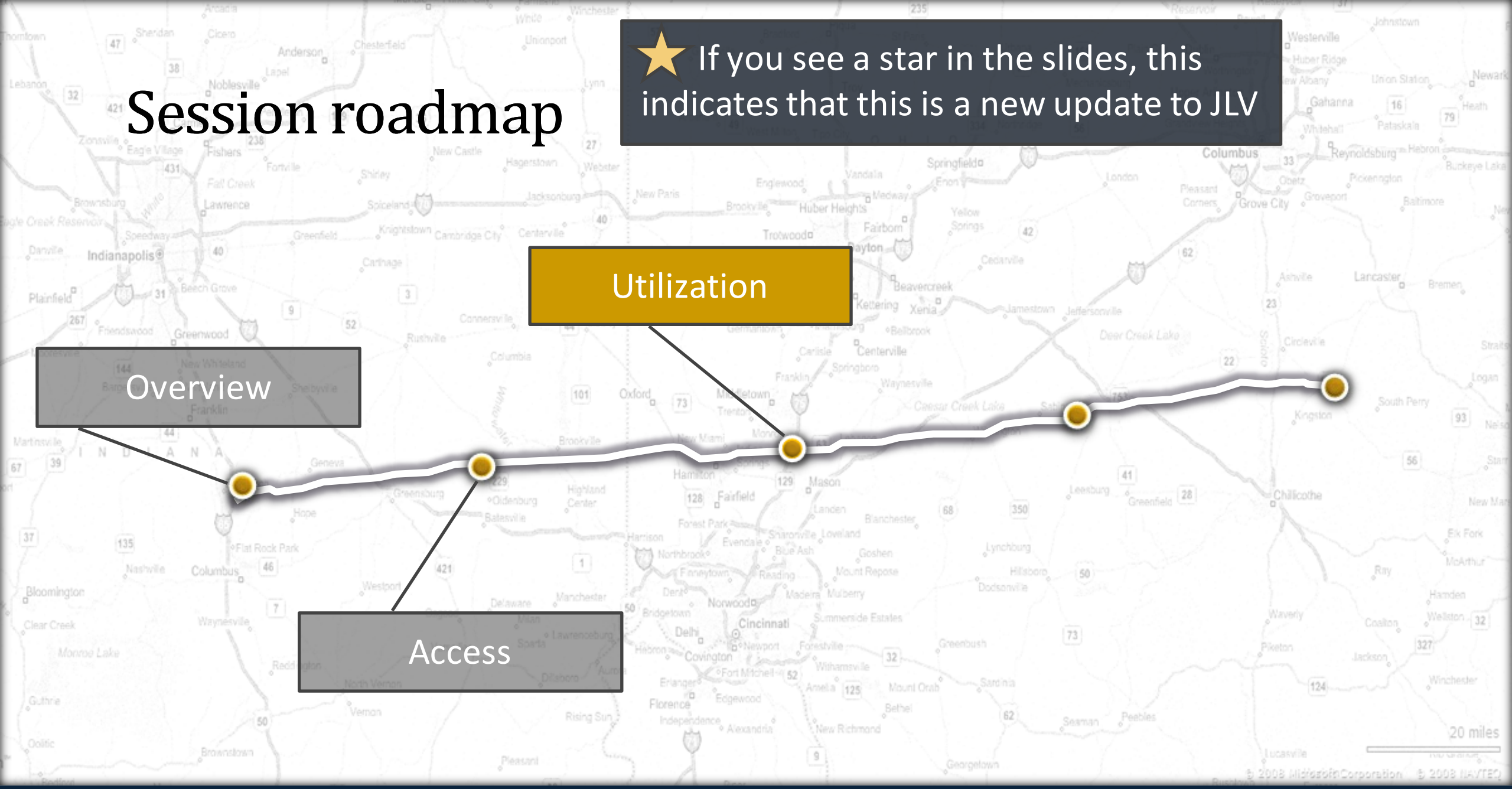
- For Research, a separate request for JLV is needed for each research project
  - Submit request(s) via the Data Access Request Tracker (DART)
- Important note: Waiver of HIPAA Authorization application and/or study protocol must contain a description of what data will be accessed and where it will be stored



Department of Veterans Affairs	RESEARCH ACCESS TO VHA ELECTRONIC HEALTH RECORDS		
User Information			
1. Last Name, First Name, Middle Name, Suffix		2. VA E-Mail Address	
3. Job Title	4. Work Phone (Include Area Code)	5. Station (Facility) Number	
6. Full Social Security Number	7. Date of Birth (MM/DD/YYYY)	8. ISO Name	9. ISO E-Mail Address
10. Protocol Name		11. DART Tracking Number	
12. IRB Approval Date (MM/DD/YYYY)	13. IRB Expiration Date (MM/DD/YYYY)	14. Cooperative Studies Program Number (CSP#)	
Special User Access Requested for:			
☐ CAPRI ☐ Joint Legacy Viewer (JLV)			
Level of Access			
☐ National ☐ Site Restricted List			
By signing below, I affirm that I will notify National Data Systems (NDS) of any change in my position or duties as related to this protocol. I also affirm that I will stay current on the required training to view Protected Health Information (PHI). I acknowledge that user access to this data will be restricted to what is approved for this protocol. Data will not be reused or shared with other research projects unless specifically authorized in the protocol and approved by the Institutional Review Board (IRB). Once the storage location of the data is approved, I will not move the data to other locations unless specifically authorized by National Data Systems. It is the responsibility of BOTH the user and the supervisor to ensure training is completed every 365 days.			
Approval			
NAME OF INDIVIDUAL REQUESTING ACCESS	DATE SIGNED (MM/DD/YYYY)		
NAME AND TITLE OF PRINCIPAL INVESTIGATOR	DATE SIGNED (MM/DD/YYYY)		
NAME OF APPROVING AUTHORITY (ACOS-R or COS)	DATE SIGNED (MM/DD/YYYY)		

Session roadmap

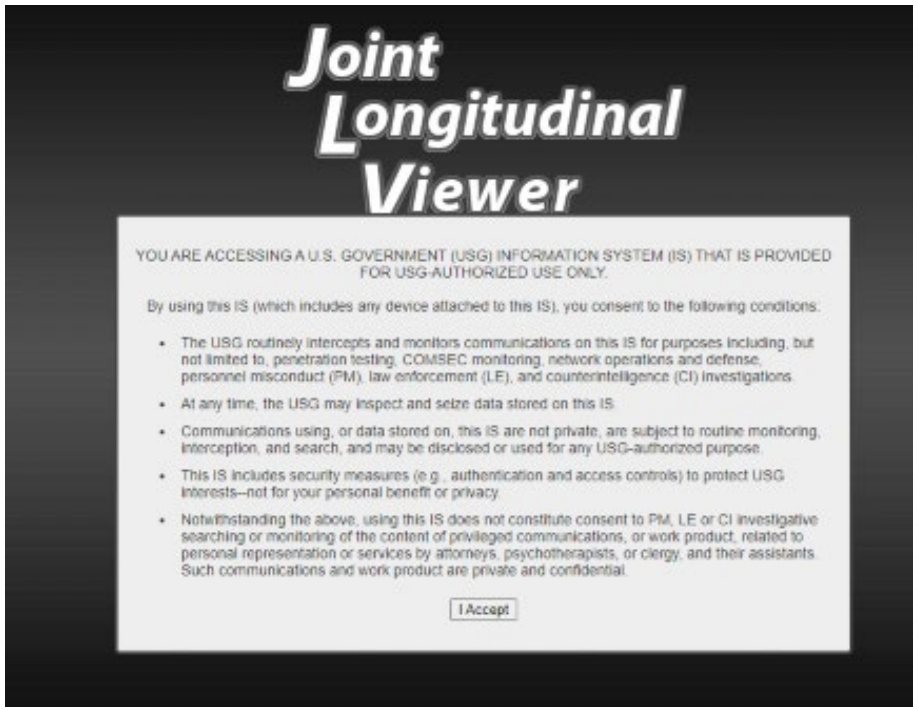
★ If you see a star in the slides, this indicates that this is a new update to JLV



Logging in

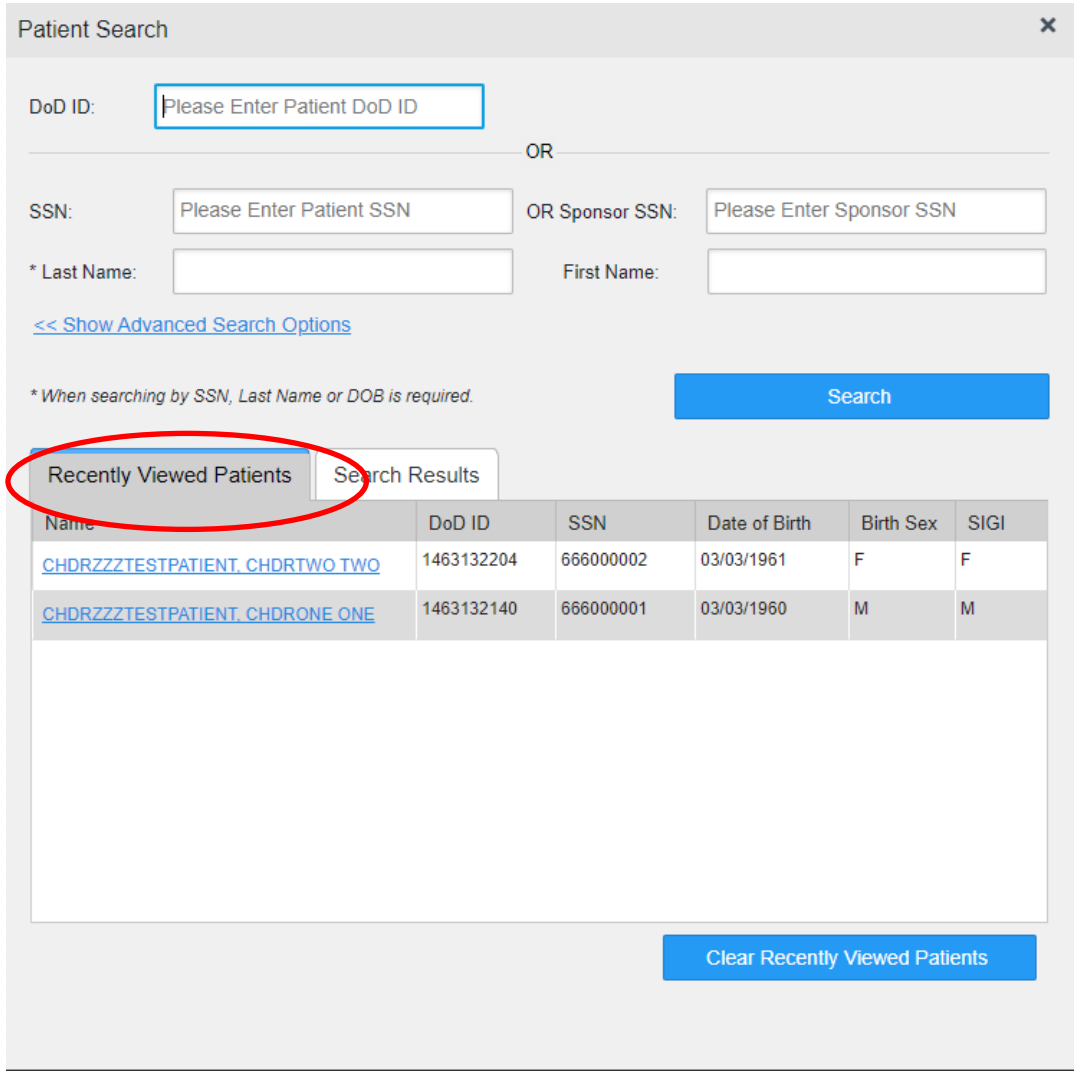
- JLV can be launched multiple ways
  - JLV button in CPRS
  - JLV tab in CAPRI
  - JLV menu page in Cerner PowerChart
  - Google Chrome or Edge browsers
    - Internet Explorer does not work with JLV
    - https://jlv.med.va.gov/JLV/

- Login using PIV card
  - If PIV card does not work
    - CPRS/CAPRI Access/Verify or
    - Use the "View Other Sign-In Options' link to use Windows Authentication (Network Access/Verify)



Patient search tool

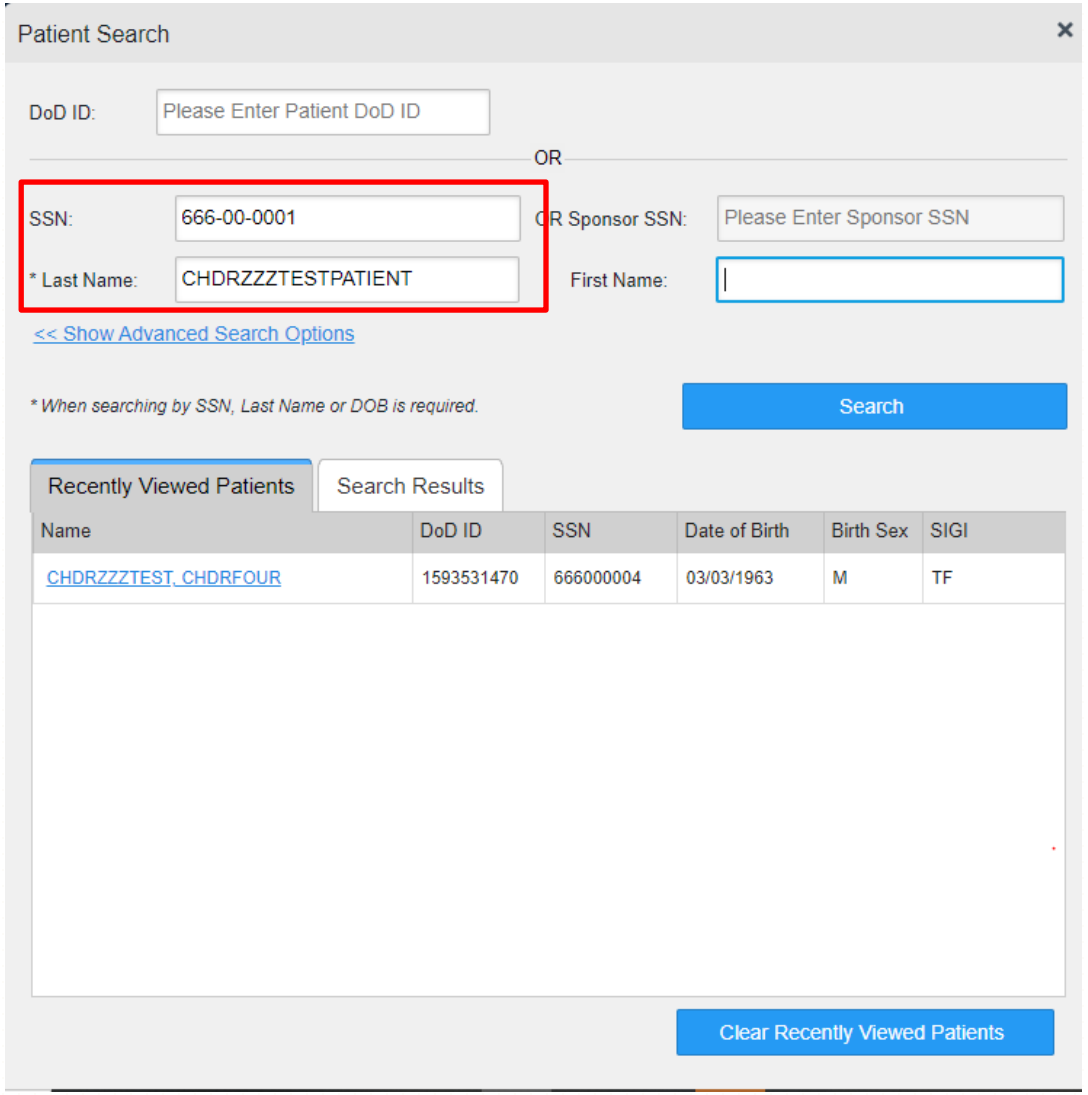
- Recently viewed patients are retained across sessions



If you have a record open in CPRS or CAPRI, JLV will sense that a patient has already been selected and will automatically sync to that patient record.

Finding patient records- Full SSN and full last name

- Most commonly used
- Common last names (i.e., Smith), will need full first name as well

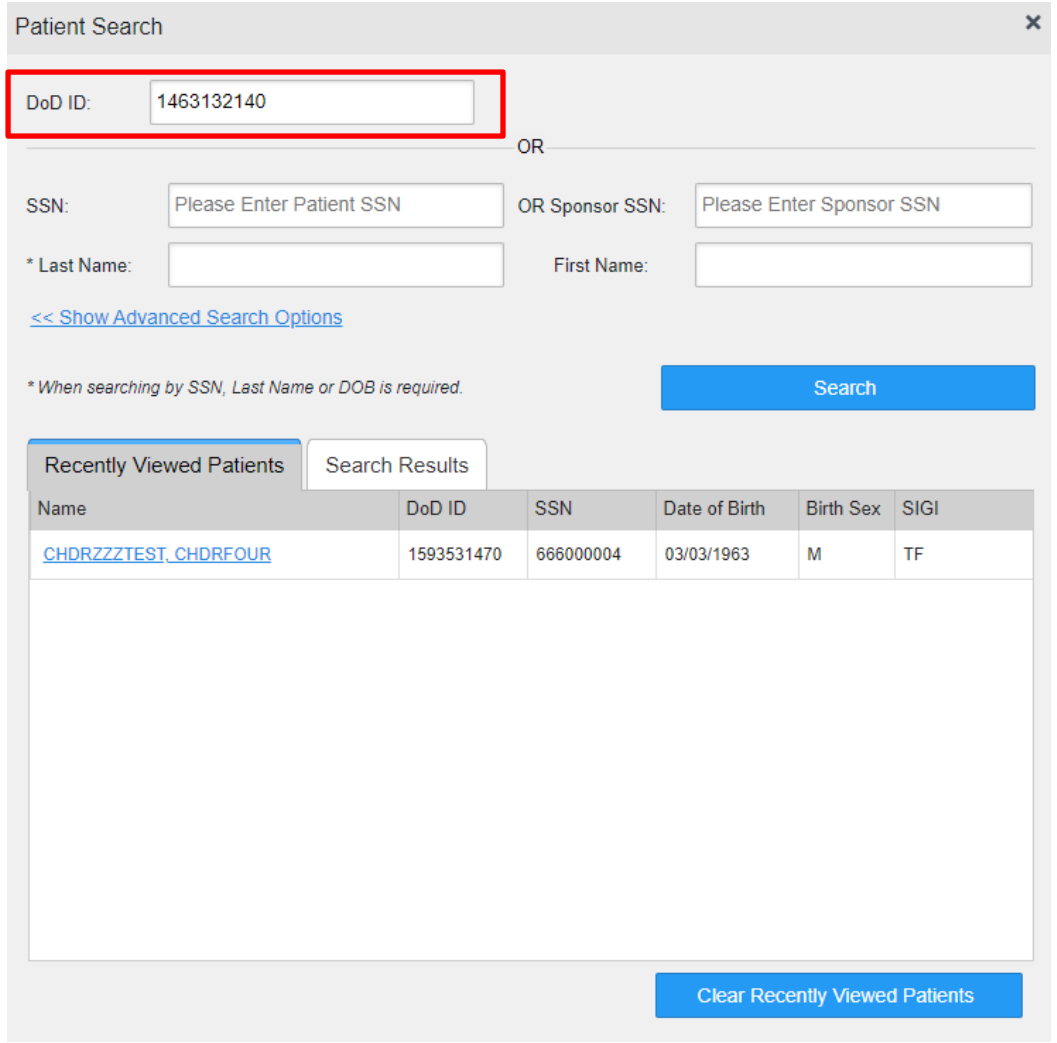


Example Patient:

Last Name: CHDRZZZTESTPATIENT
SSN: 666000001

DoD ID number

- Easiest way to search
- DoD ID numbers can be pulled from DAVINCI data
  - Called DaVINCI Person Identifier or EDIPI

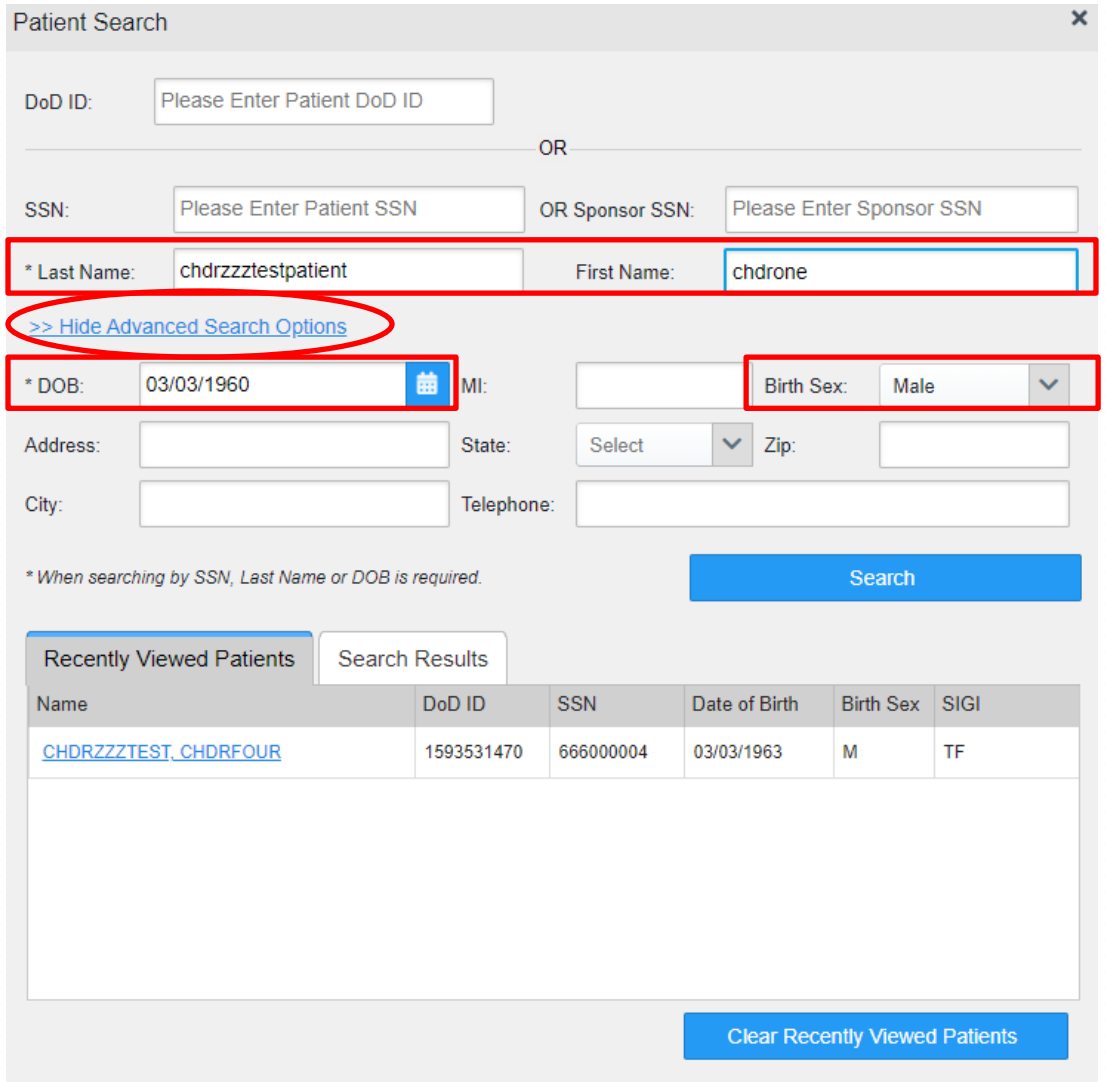


Example Patient:

DoD ID #: 1463132140

No SSN or DoD ID number

- Will need to use Advanced Search Options:
  - Full last and first name
  - Date of birth
  - Birth sex

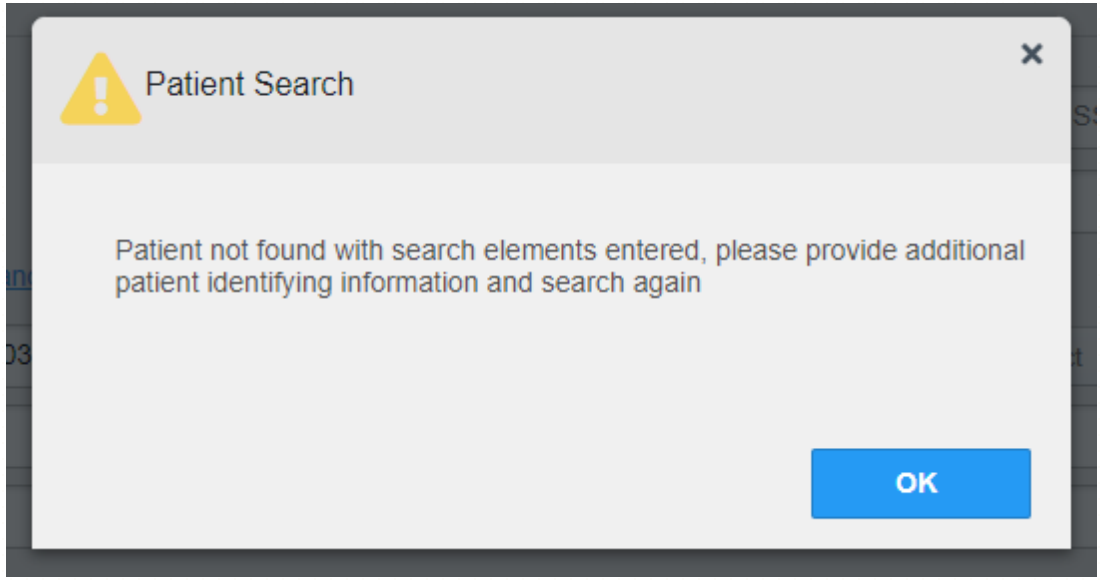


Example Patient:

First Name: CHDRONE
Last Name: CHDRZZZTESTPATIENT
DOB: 03/03/1960
Birth Sex: M

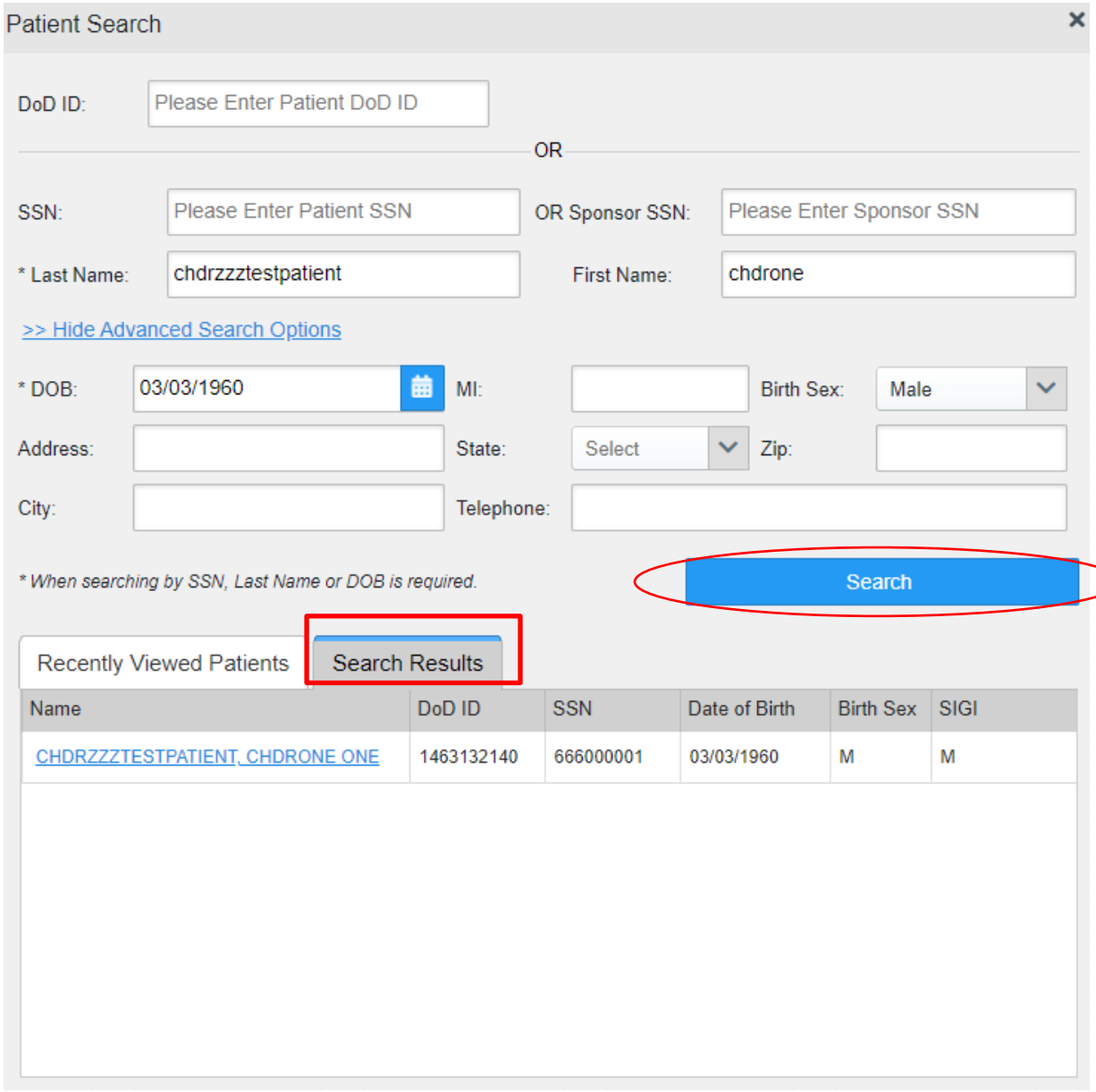
Error message

- Common message received because of:
  - Misspelling or mistyping information
  - Not having enough information
  - Searching for a common name



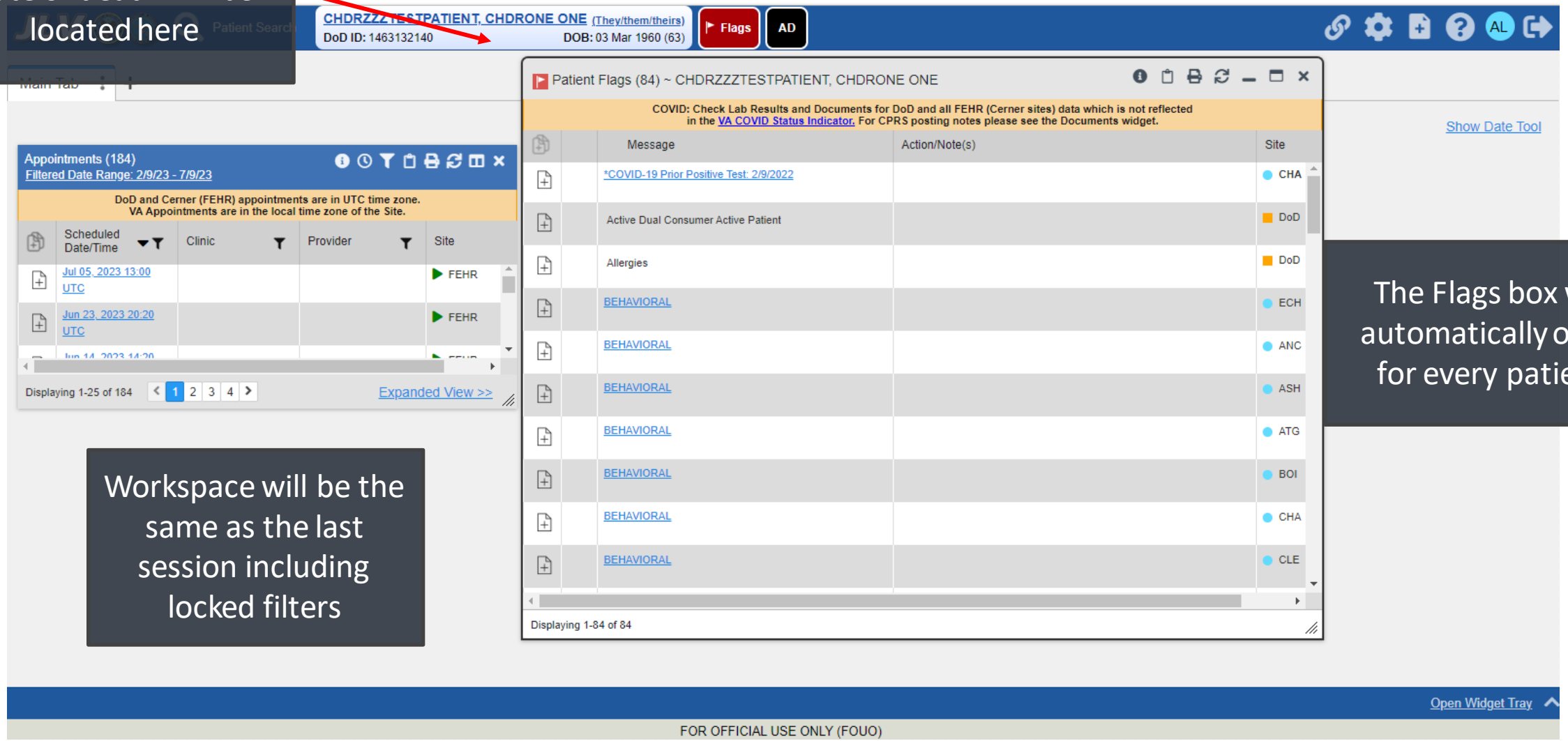
Results

- A record match will populate in “Search Results” tab



Opened patient record

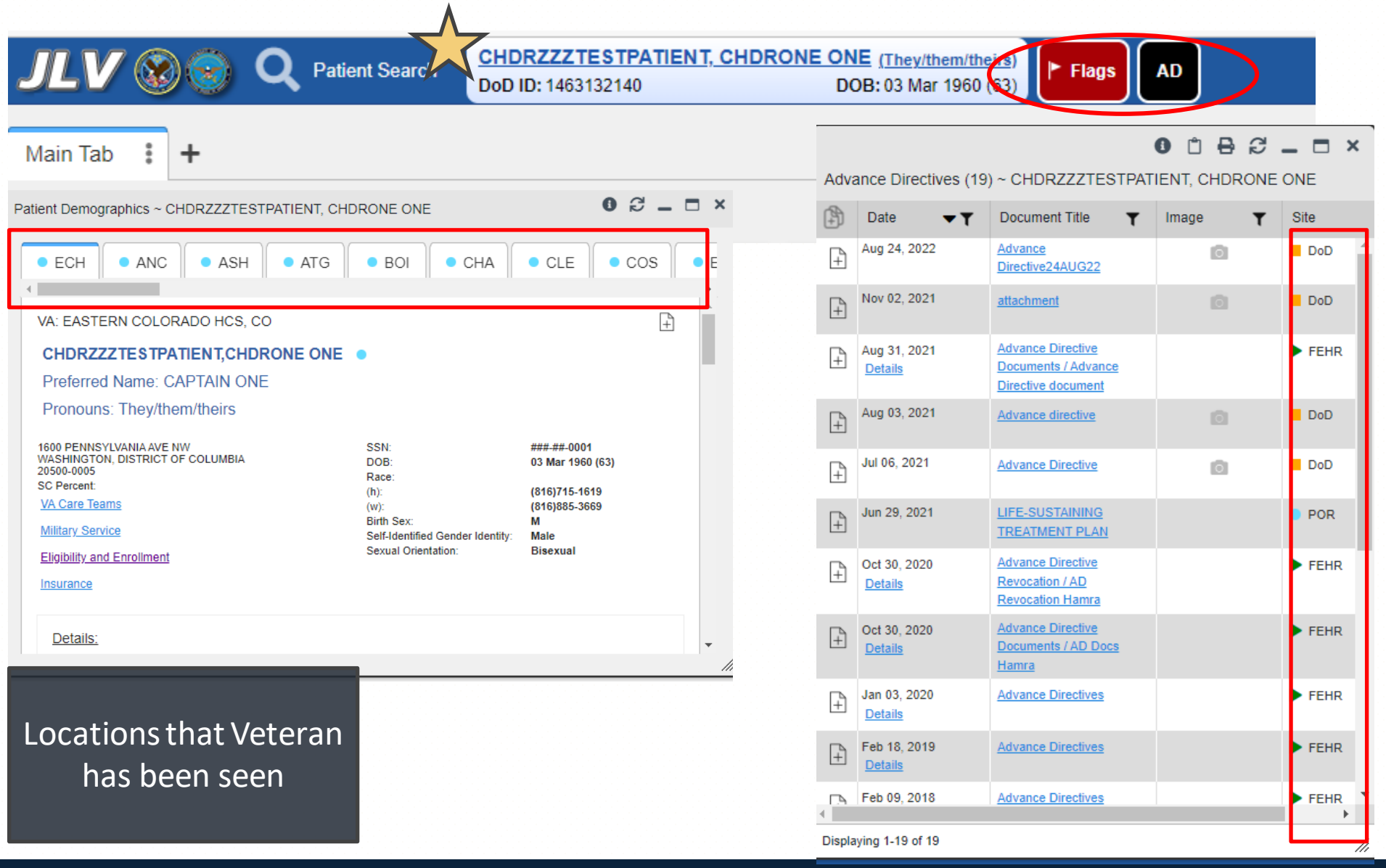
If a patient is deceased, date of death will be located here



The Flags box will automatically open for every patient

Workspace will be the same as the last session including locked filters

Demographics and AD

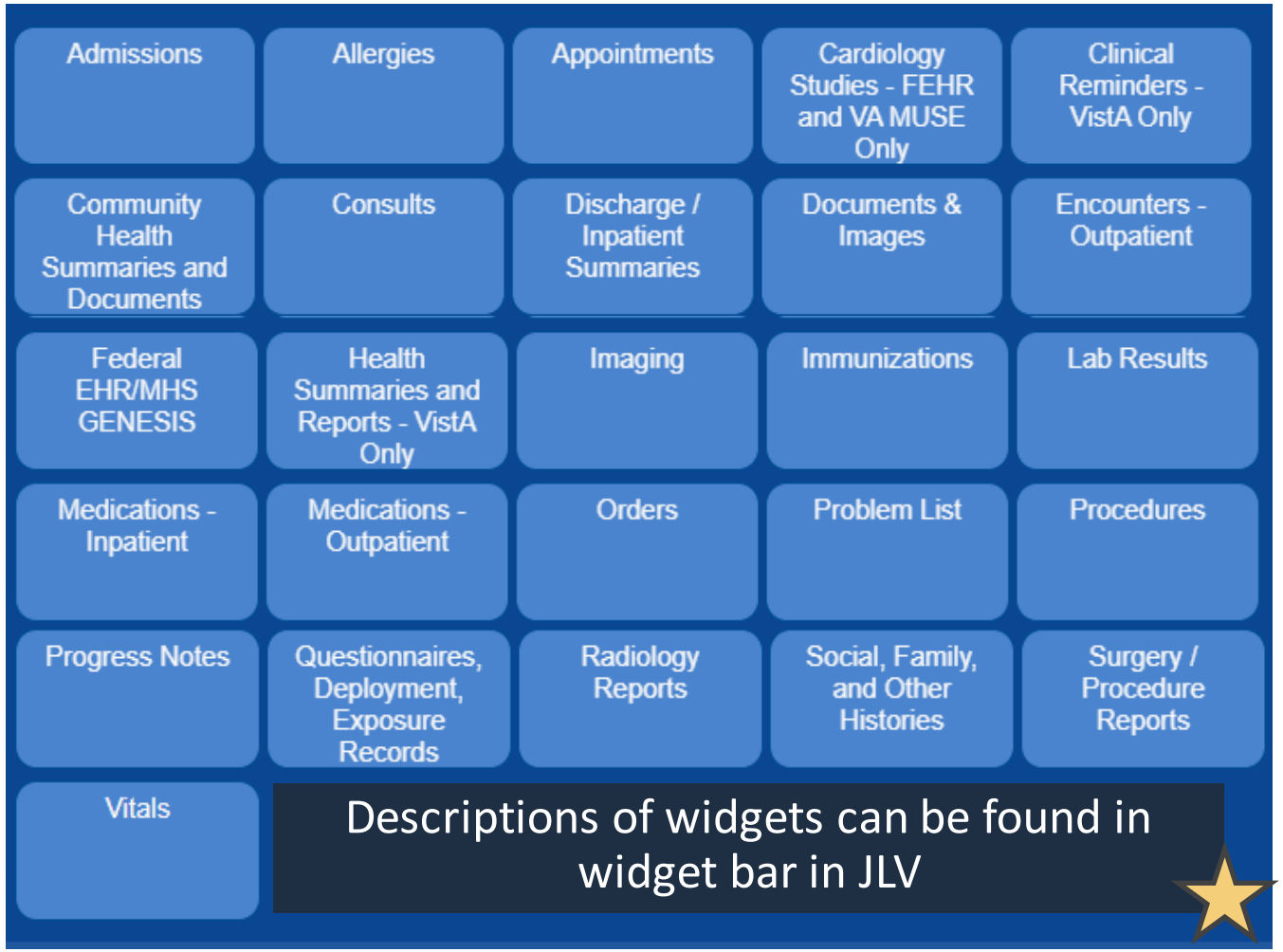


Select to reopen Flags or to open Advance Care Planning documents

Contains documents from all locations completed

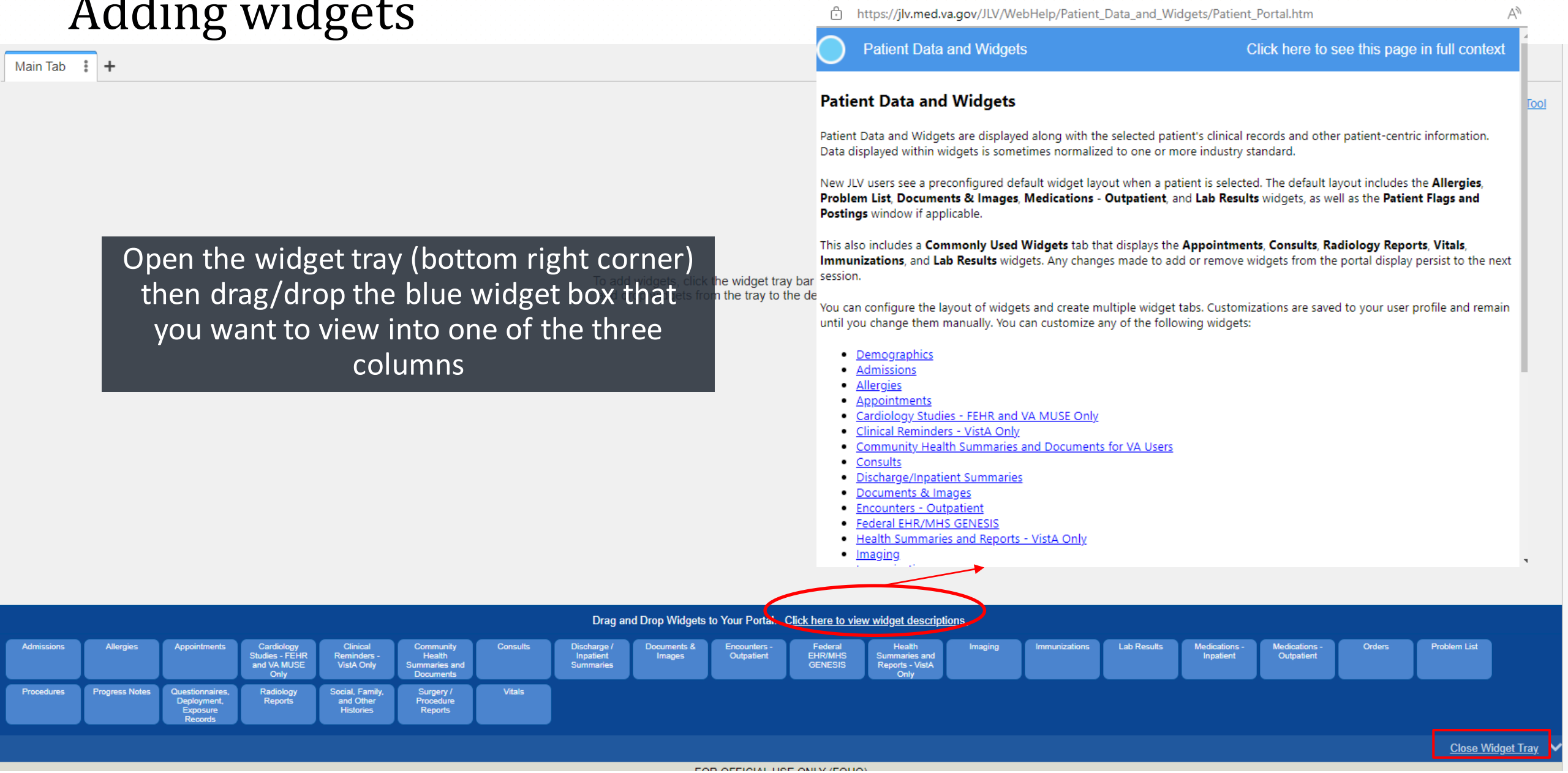
Locations that Veteran has been seen

Widgets- elements within JLV portals that contain and display data specific to a clinical domain



Adding widgets

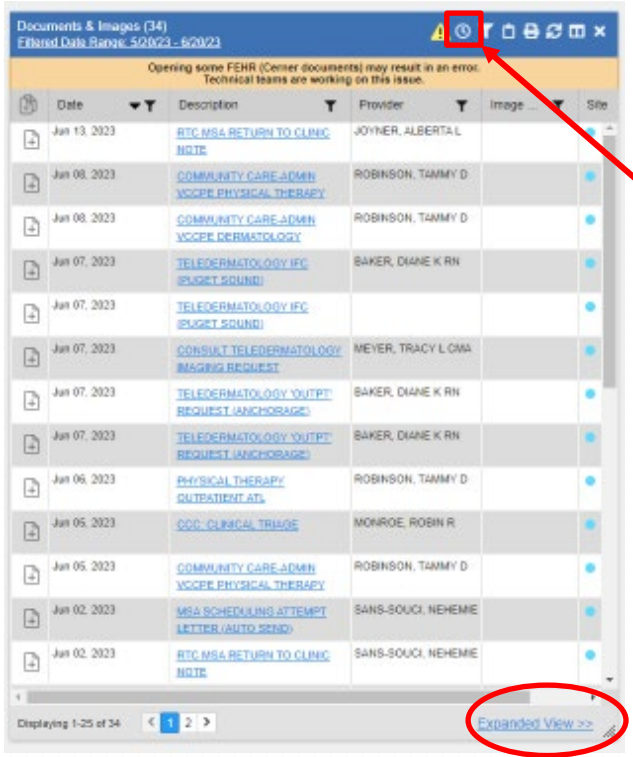
Open the widget tray (bottom right corner) then drag/drop the blue widget box that you want to view into one of the three columns



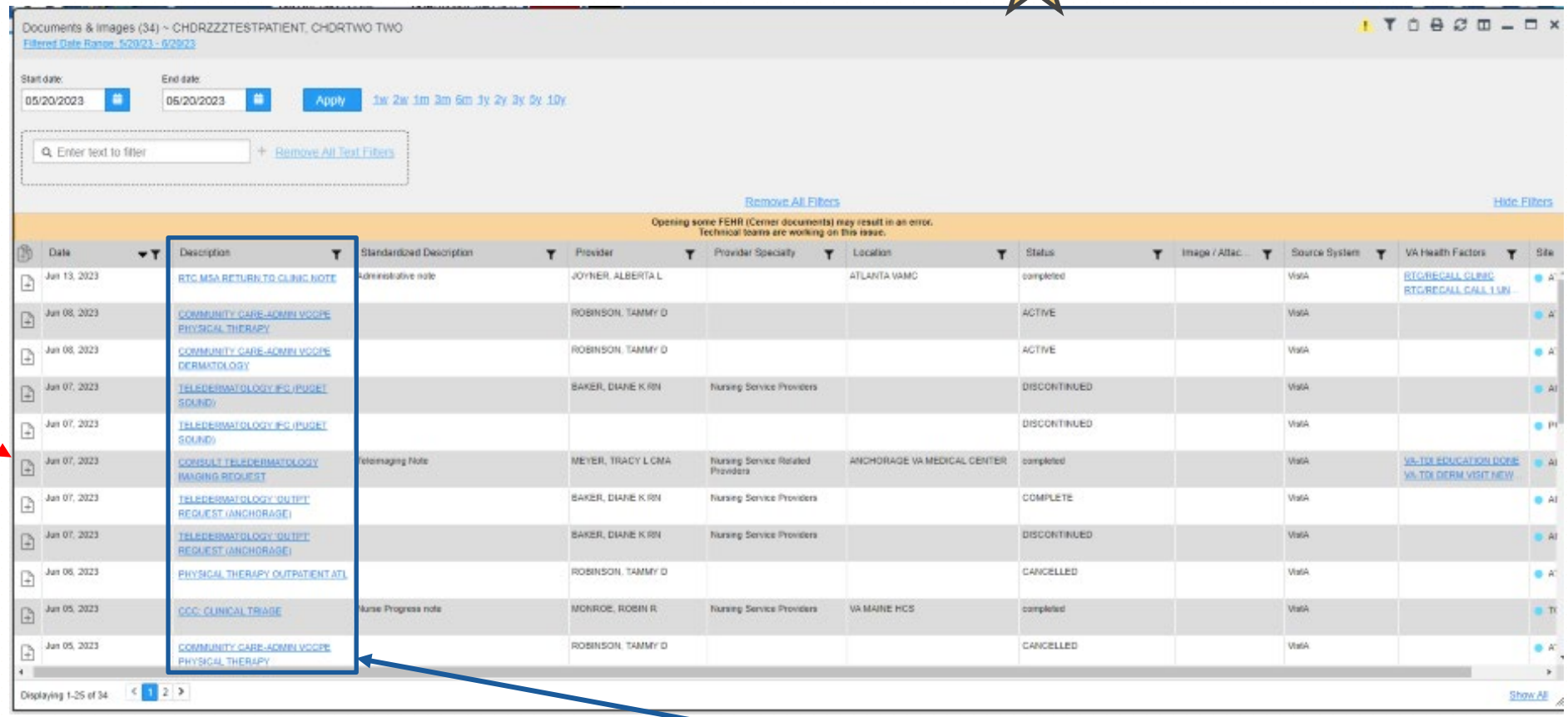
Other notes about widgets

- Source systems define where data will be displayed
- Widgets are a snapshot in time
- Data may be duplicated or cross-referenced
  - Example: Clinical Notes could be in “Progress Notes”, “Documents and Images” and hyperlinked in “Encounters- Outpatient”
- Scanned documents could be in the “Documents and Images” widget
  - Documents could be from either VistA Imaging (VA) or HAIMS (DoD)
- Community data may be scanned in the “Documents and Images” widget, or may be available in “Community Health Summaries and Documents” widget
- Cerner data is listed in widgets under the location “FEHR” or in the “Federal EHR/MHS Genesis” widget

Expanded view and Widget Properties



Alerts you to Clinical Reminders
Clicking symbol will open the Clinical Reminder widget

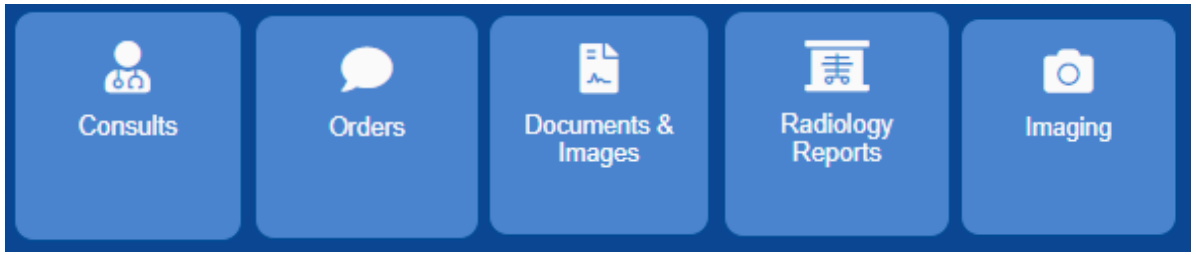


Expanded view has more categories to filter

Best practice to work in expanded view when available

Clicking blue hyperlink will take you to note text

Using multiple widgets- Example



Using the "Consults" or "Orders" widget can give you a timeline to search within other widgets

CHDRZZZTESTPATIENT, CHDRONE ONE Flags AD | Radiology

Show Date Tool

Consults (29)
Filtered Date Range: 6/2/21 - 6/22/22

Date	Consult Order	Status	Site
Jan 05, 2022 08:34	TELEDERMATOLO... 'OUTPT' REQUEST (ANCHORAGE)	COMPLETE	ANC
Dec 28, 2021 10:10	LUNG CANCER SCREENING OUTPATIENT	DISCONTINUED	ASH
Dec 22, 2021 11:58	LUNG CANCER SCREENING OUTPATIENT	COMPLETE	ASH
Dec 20, 2021 14:25	COMMUNITY CARE-ADMIN VCCPE PHYSICAL THERAPY	DISCONTINUED	ATG
Dec 16, 2021 00:42	Office Clinic Note	Approved	FEHR

Displaying 1-25 of 29 | 1 2 | Expanded View >>

Orders (4562)
Filtered Date Range: 6/2/21 - 6/22/22

Order Date	Description	Status / Prio...	Type	Site
Dec 22, 2021 09:50	BLOOD&HGB-FEVA/NMCP	CANCELED / ROUTINE	LAB	DoD
Dec 22, 2021 11:57	LUNG CANCER SCREENING OUTPATIENT Cons Consultant's Choice	COMPLETE	Consults	ASH
Dec 28, 2021 10:09	LUNG CANCER SCREENING OUTPATIENT Cons Consultant's	DISCONTINU...	Consults	ASH

Displaying 3926-3950 of 4562 | 157 158 159 160 | Expanded View >>

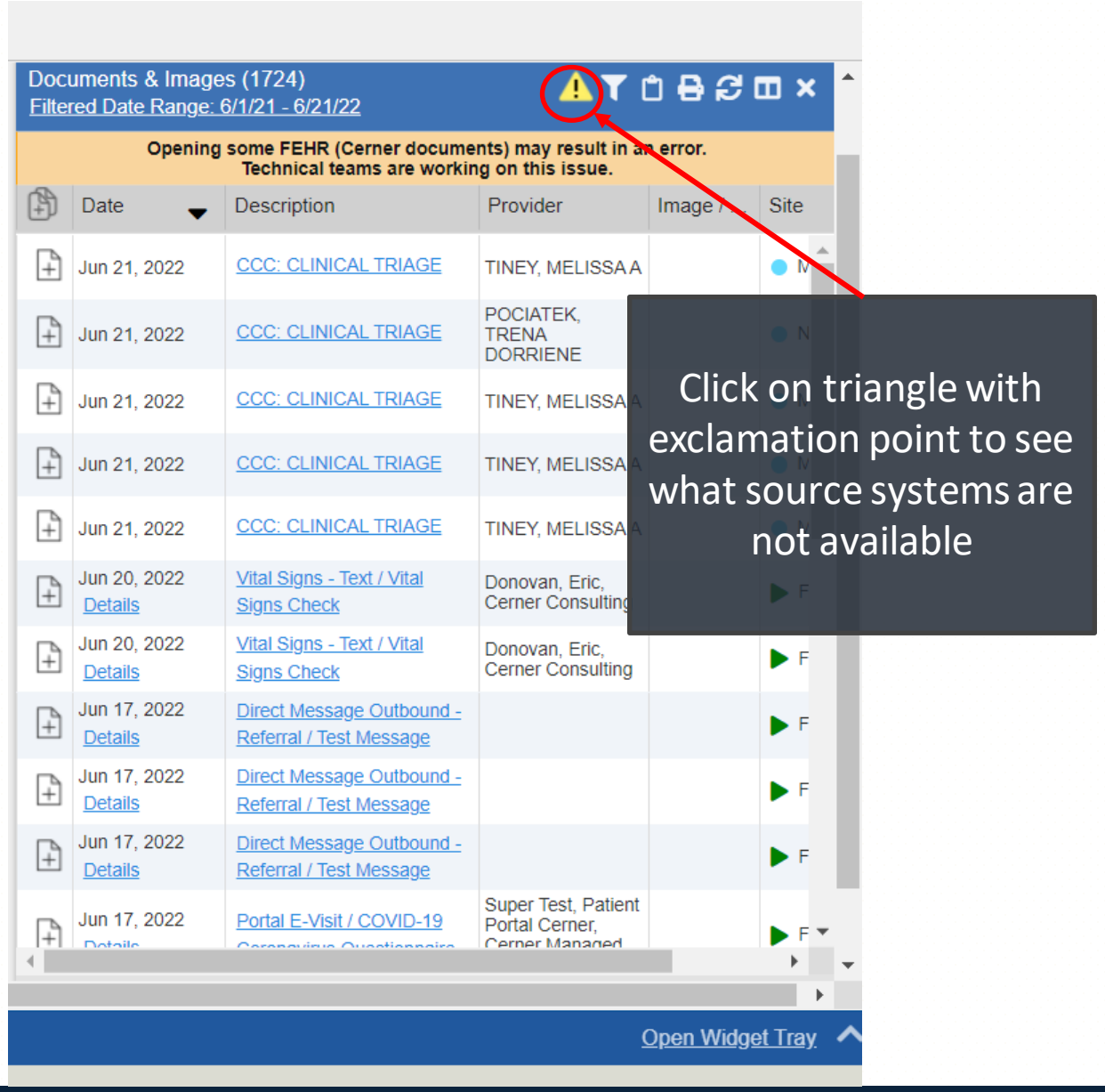
Documents & Images (1204)
Filtered Date Range: 12/2/21 - 6/22/22

Opening some FEHR (Cerner documents) may result in an error. Technical teams are working on this issue.

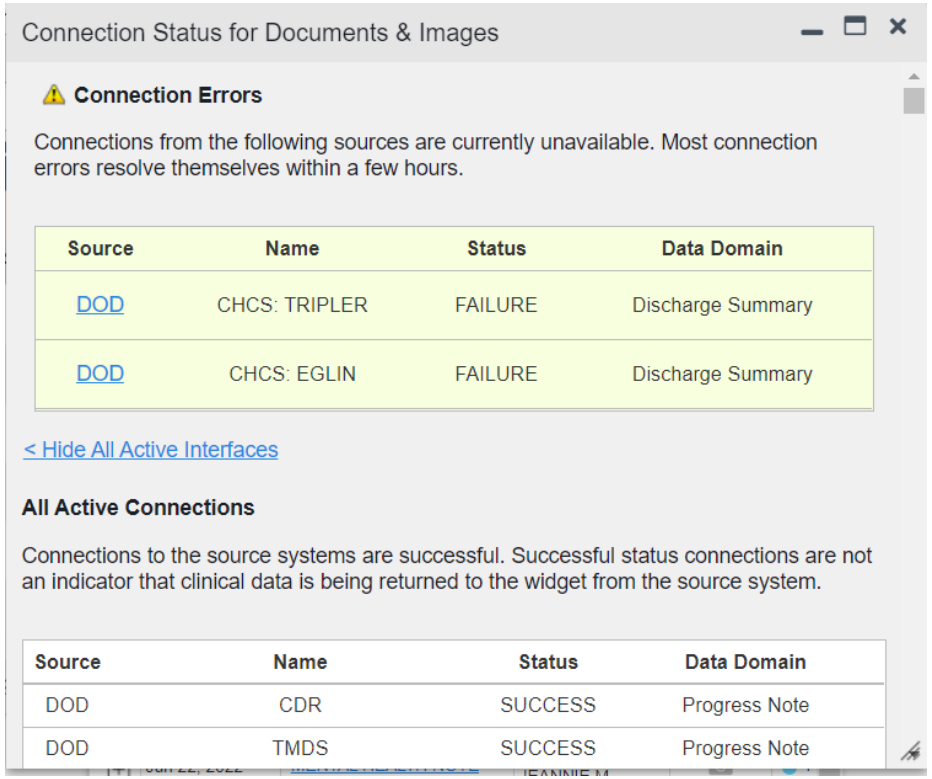
Date	Description	Provider	Image / ...	Site
Dec 20, 2021	COMMUNITY CARE-ADMIN VCCPE PHYSICAL THERAPY	ROBINSON, TAMMY D		A
Dec 22, 2021	NURSING TELEPHONE CONTACT	THOMAS, SABRINA M		A
Dec 22, 2021	LUNG CANCER SCREENING OUTPATIENT	NICOLINI, MICHAEL A		A
Dec 23, 2021	Lavender 992 KB			D
Dec 23, 2021	Pecan Muffins yum 60 KB			D
	Pecan Muffins			

Displaying 201-225 of 1204 | 7 8 9 10 | Expanded View >>

Source system connection error

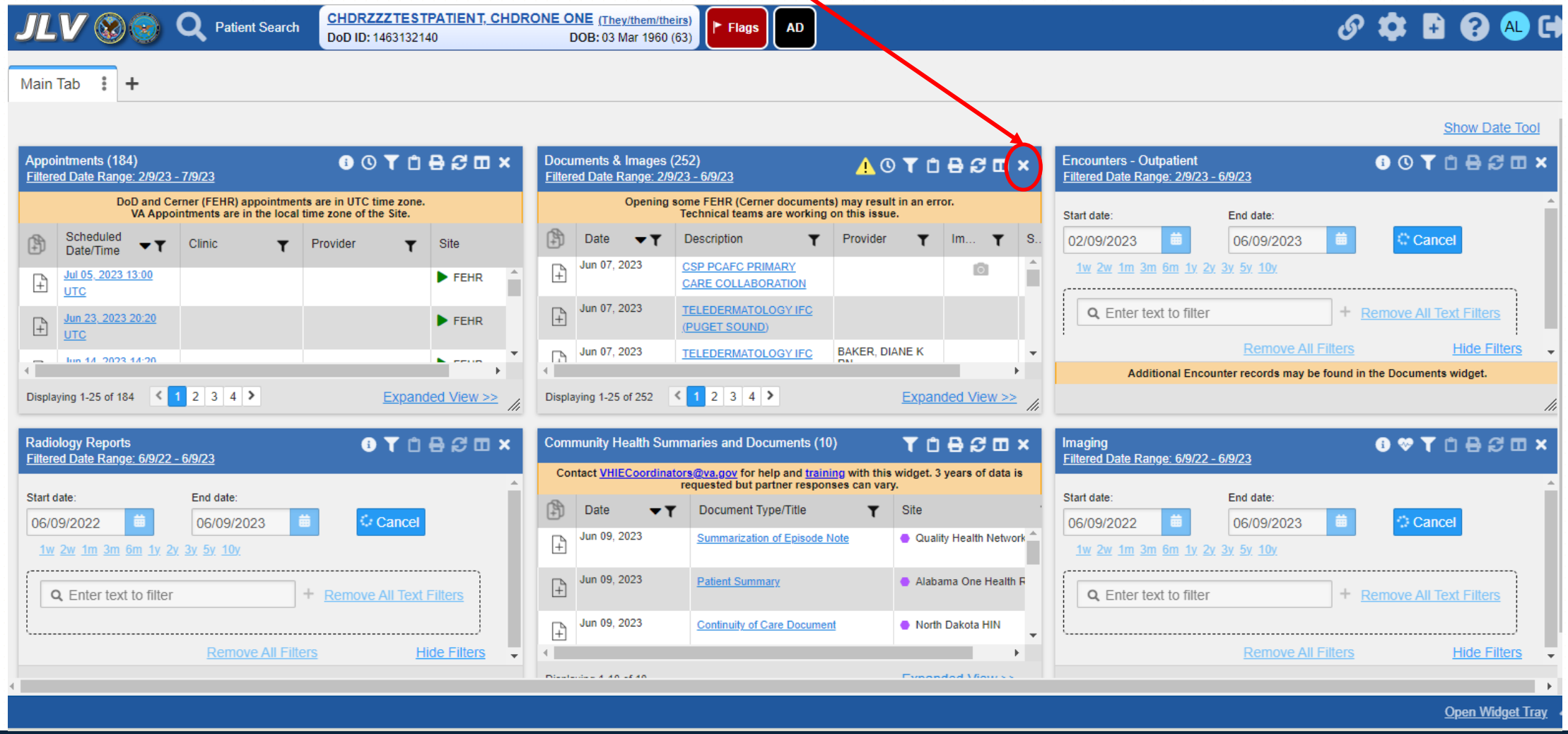


Click on triangle with exclamation point to see what source systems are not available

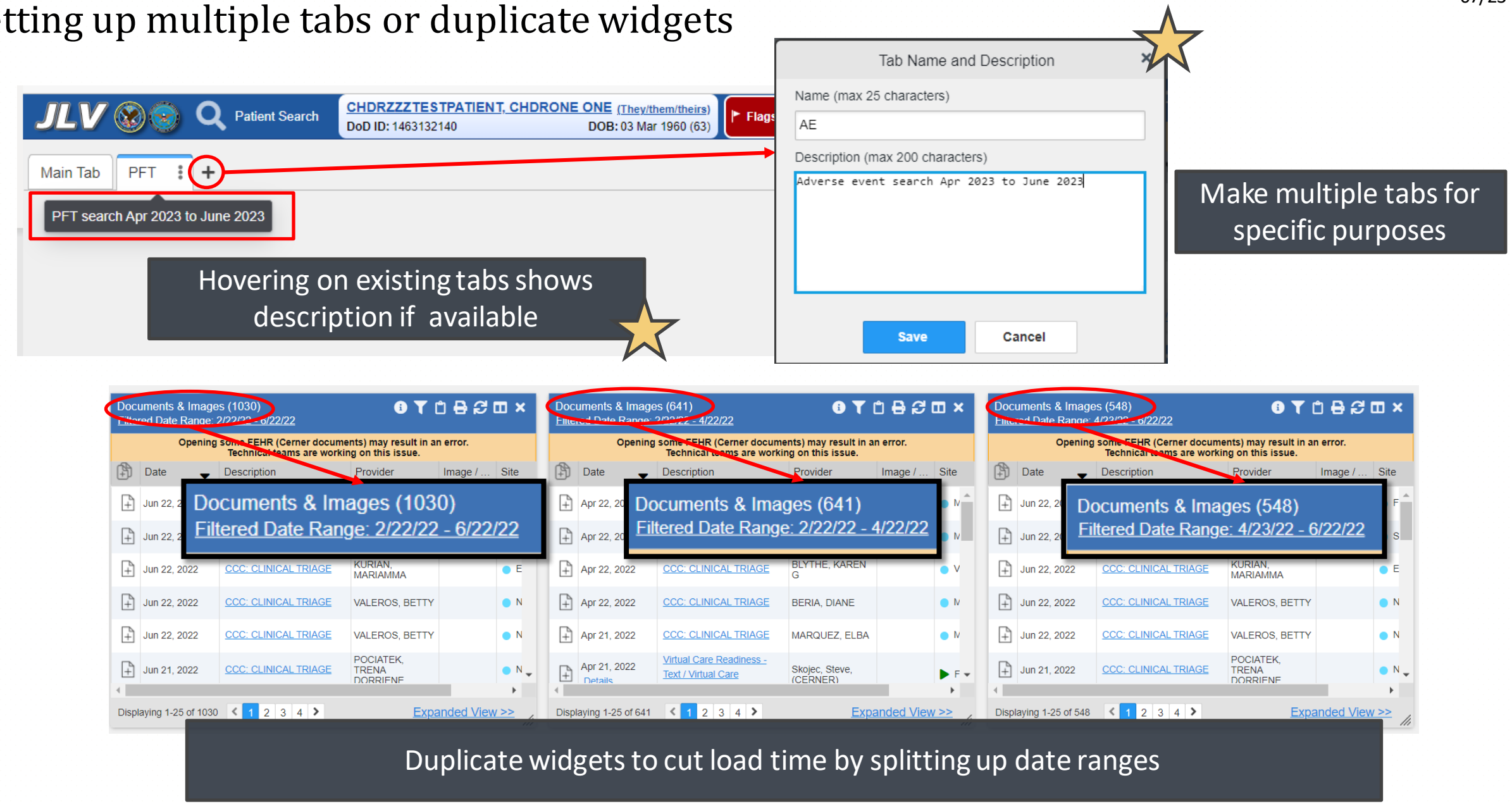


Optimizing JLV

Close out widgets that aren't necessary for your project



Setting up multiple tabs or duplicate widgets

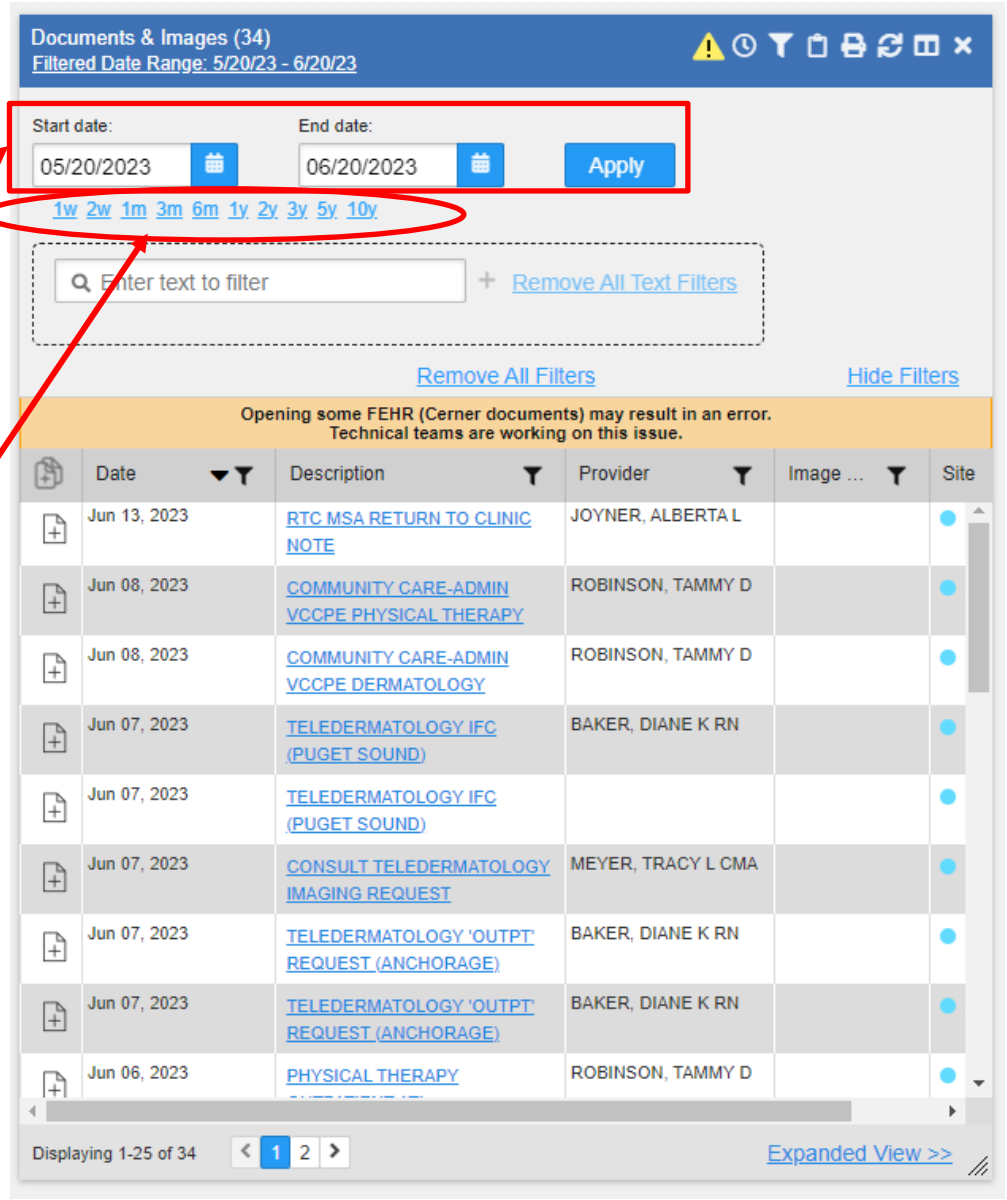


Setting date ranges

Set date manually

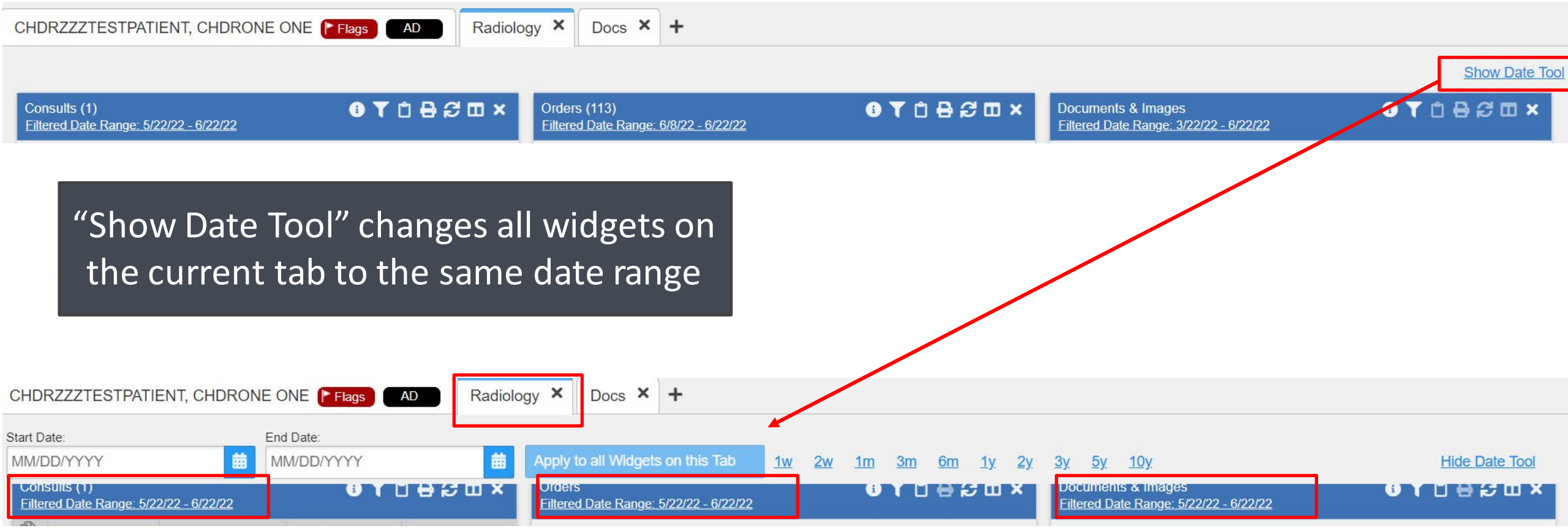
or

by choosing a preset range

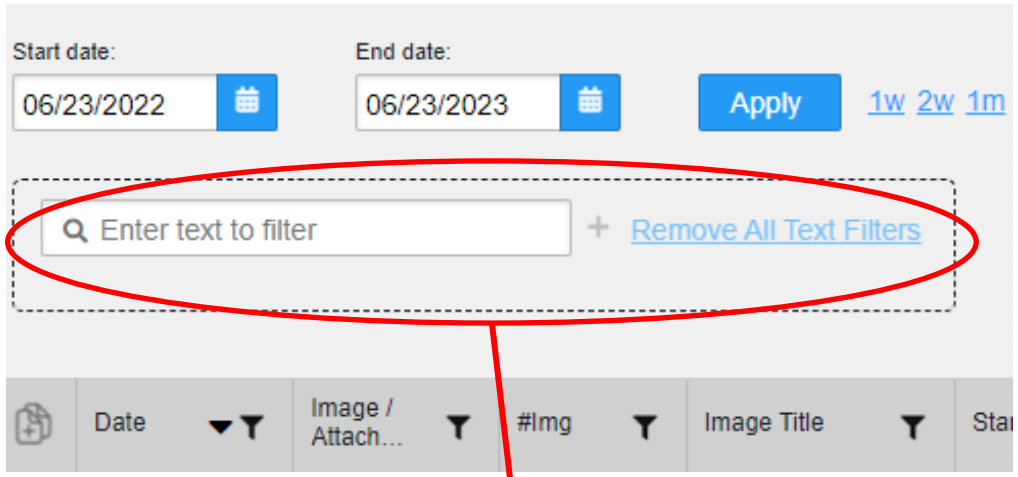


Keeping date ranges small will allow for faster filtering and loading times

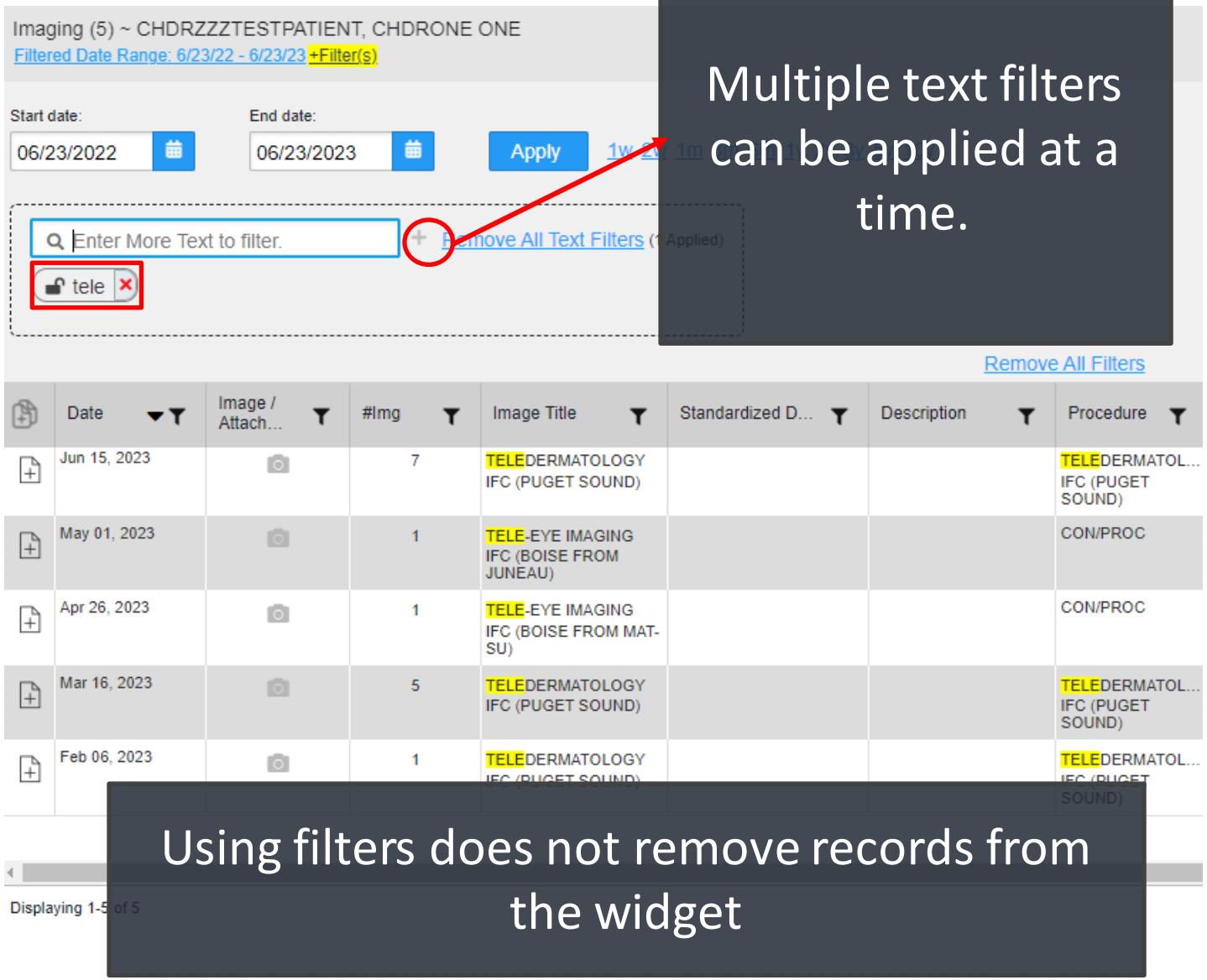
Setting date ranges-Multiple widgets



Filtering widget by using text



Using text search does not search for the term in the actual note body



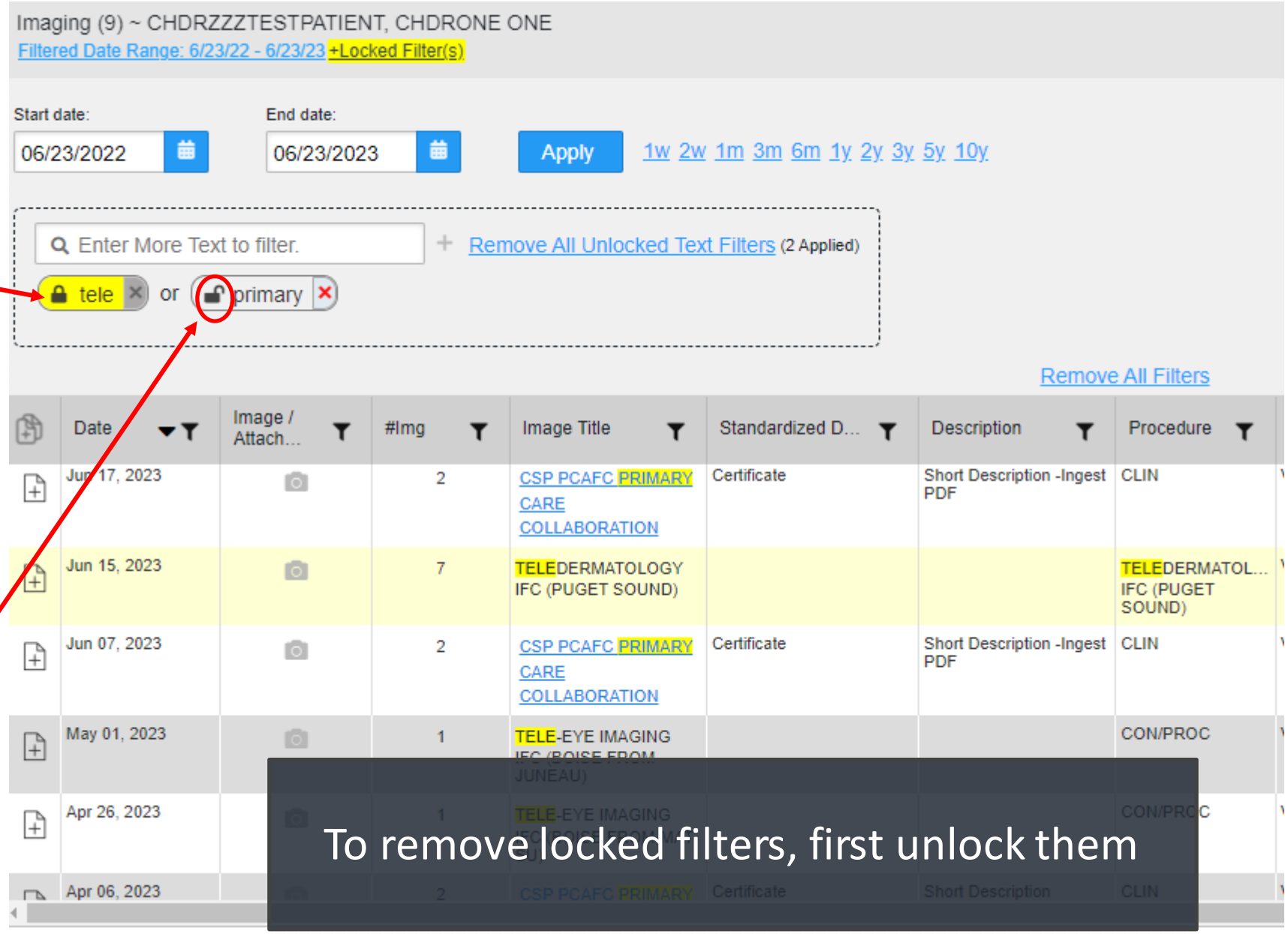
Multiple text filters can be applied at a time.

Using filters does not remove records from the widget

Locked filters

Locked filters remain with set date ranges even when patient is changed

Lock/unlock a filter by clicking on the lock icon

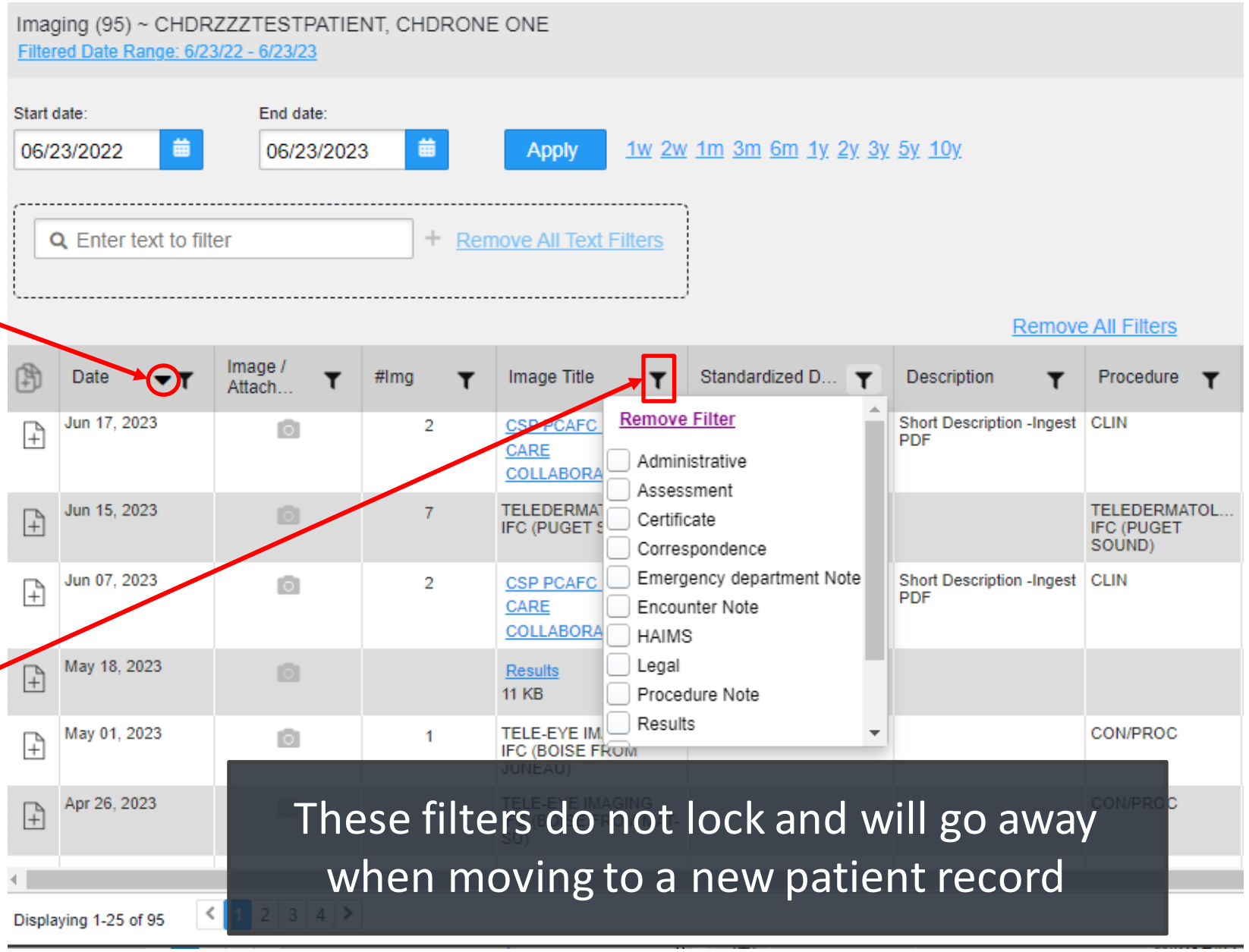


To remove locked filters, first unlock them

Filtering columns

Clicking the arrow organizes in descending or ascending order

Filter button on columns

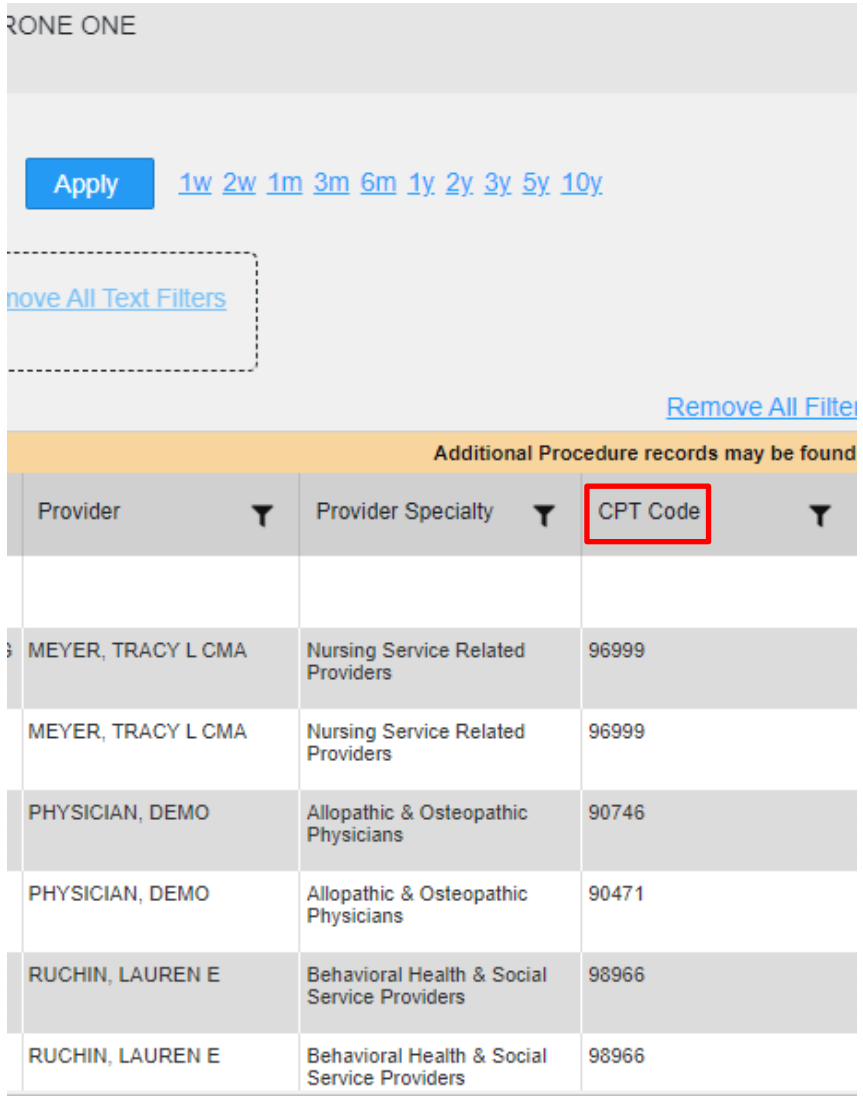


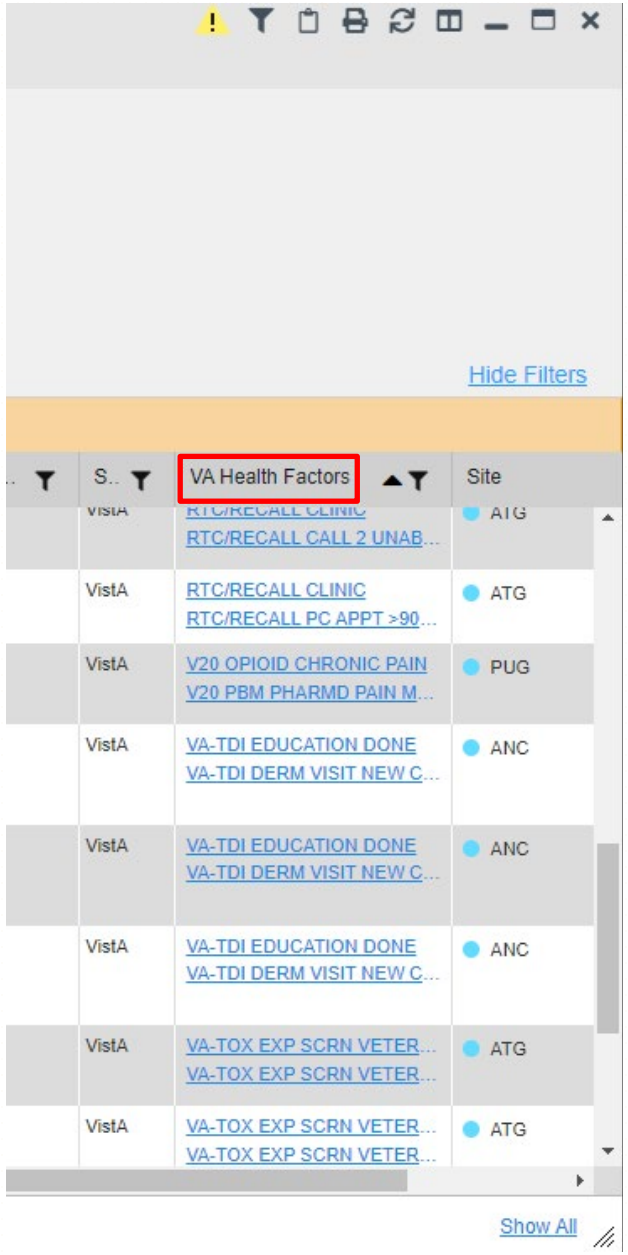
Health factors and CPT codes

CPT codes can be found in the “Procedures” widget

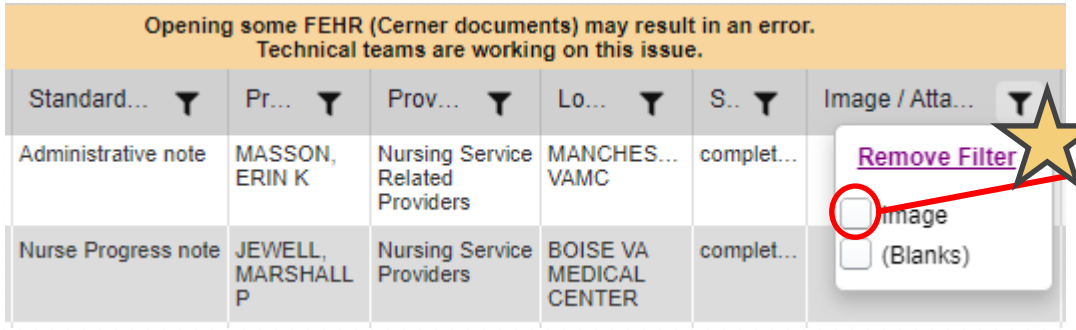
Health factors can be found in the following widgets:

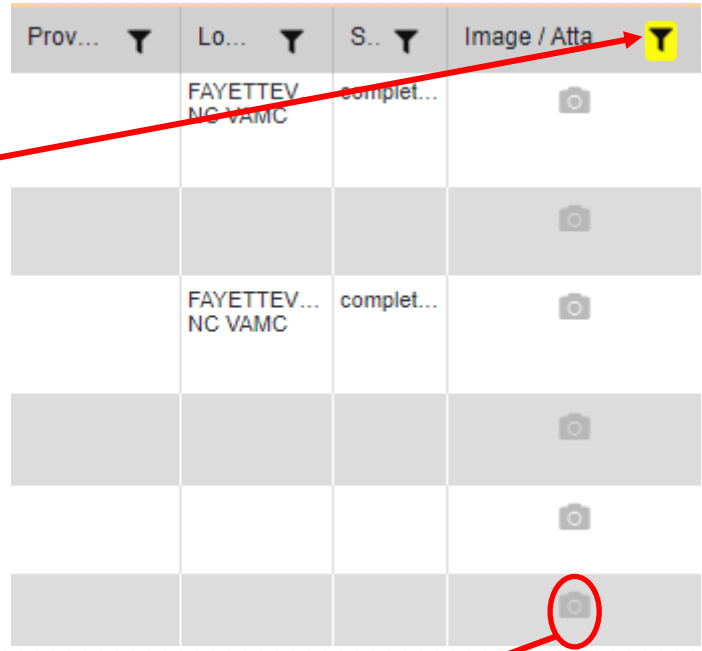
- Admissions
- Appointments
- Encounters-Outpatient
- Documents & Images





Images





Highlighted icon means that a filter is in place

Images open in VistA imaging or HAIMS for DoD

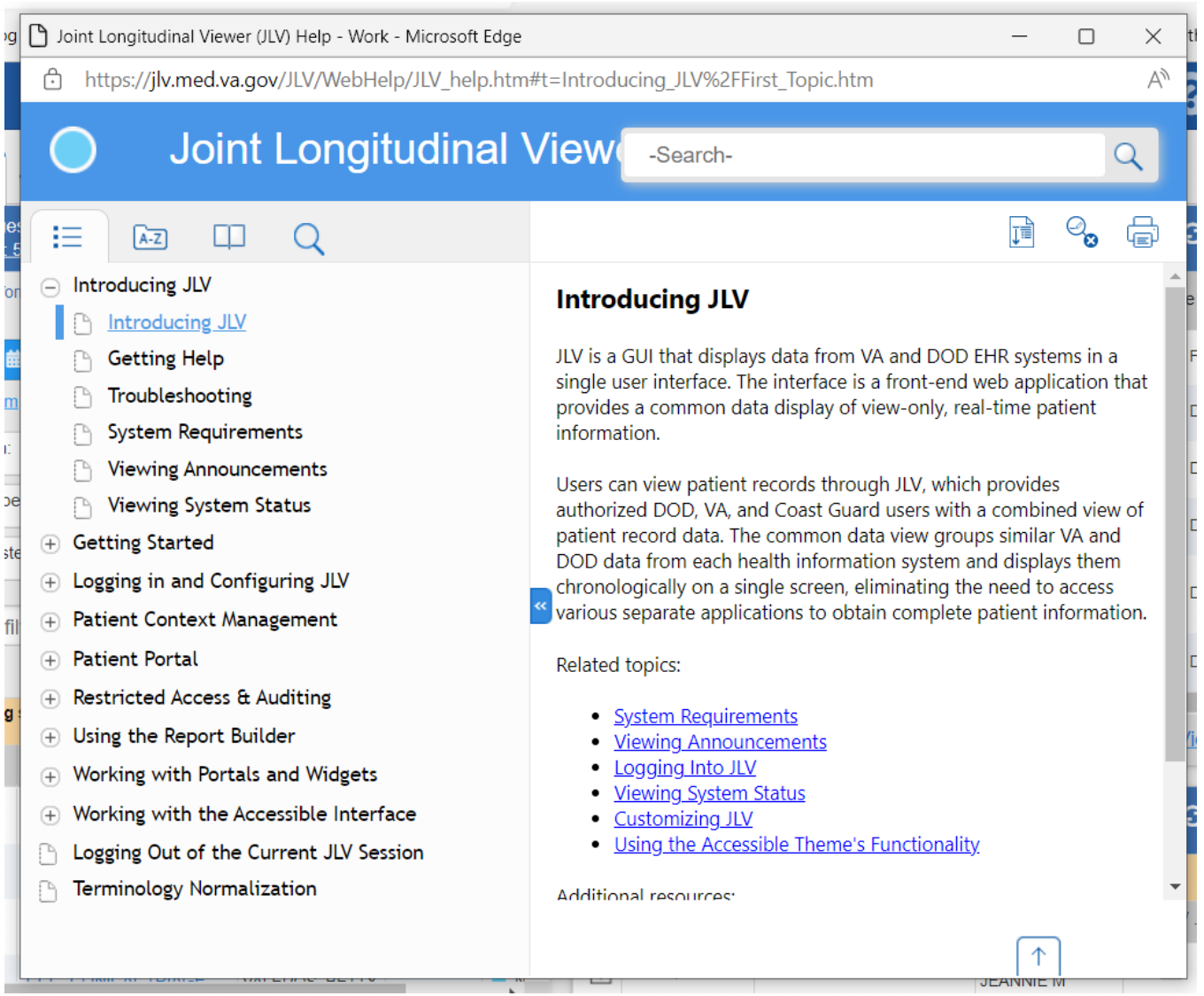
An “image” can be:
-Picture
-Radiology reports
-Test result in PDF
-Community care results Documents

Camera icon represents that an image/attachment is present

Troubleshooting JLV

Select the help icon

Select Troubleshooting or Getting Help from menu



More JLV resources

- **JLV Introductory Training Videos**

https://dvagov.sharepoint.com/sites/VACOVE2/JLV/Resources/Forms/AllItems.aspx?viewpath=%2Fsites%2FVACOVE2%2FJLV%2FResources%2FForms%2FAllItems%2Easpx&id=%2Fsites%2FVACOVE2%2FJLV%2FResources%2FJLV%20Introductory%20Training%20Videos

- **JLV website**

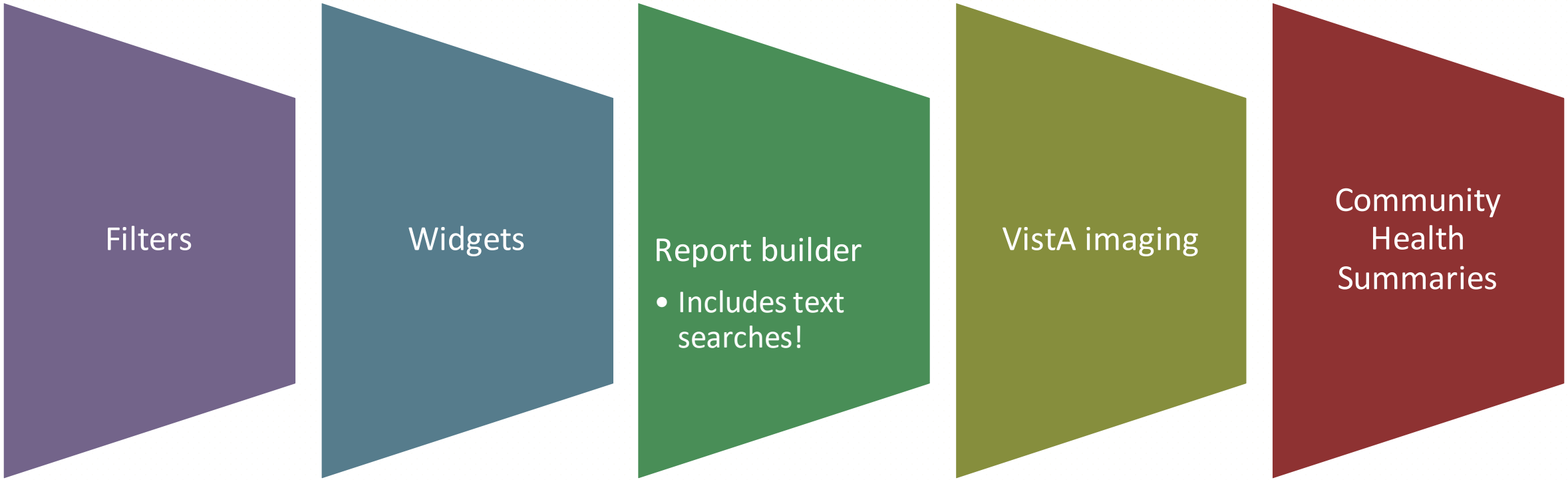
https://jlv.med.va.gov/JLV/

- **JLV SharePoint**

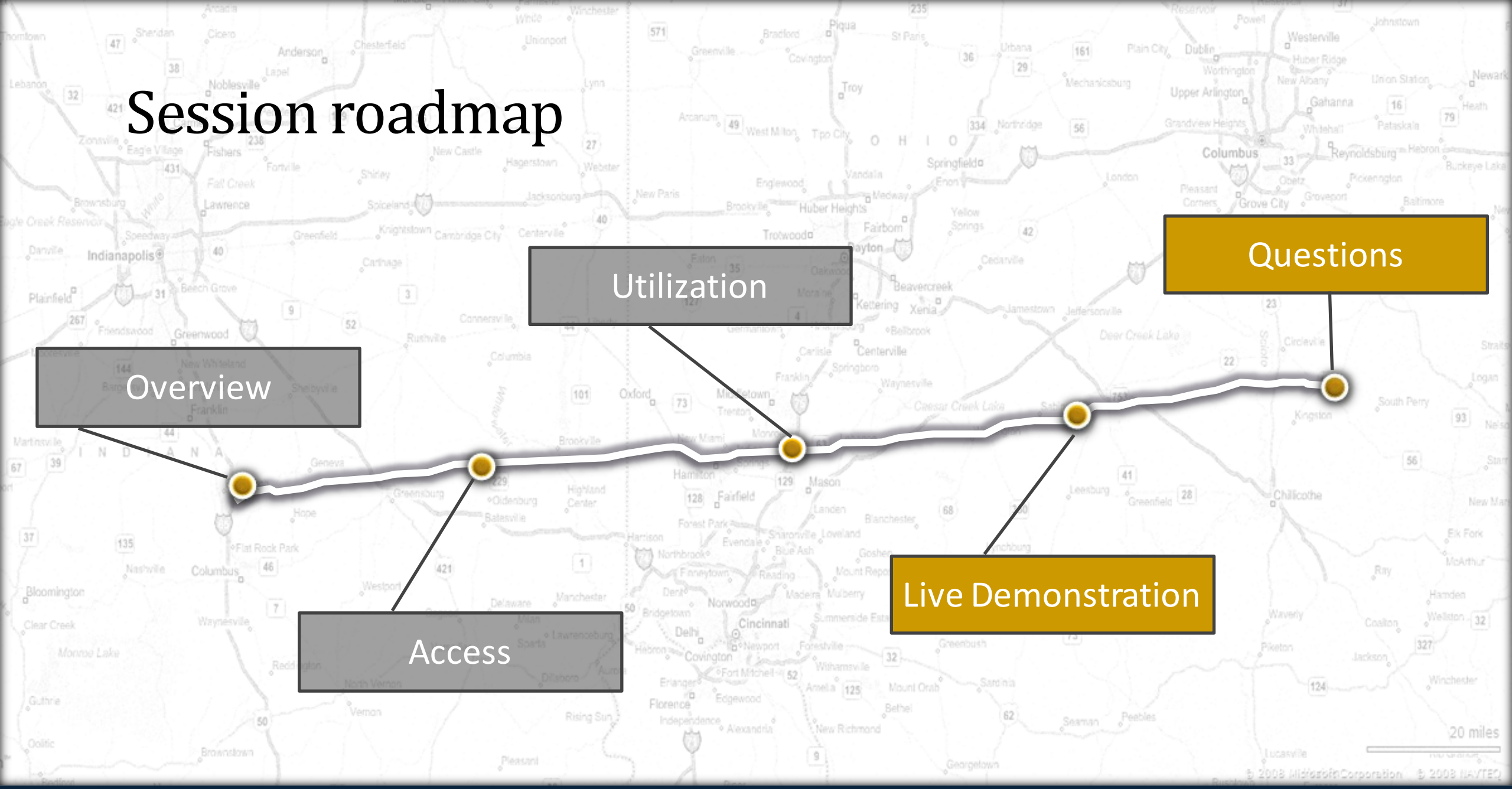
https://dvagov.sharepoint.com/sites/VACOVE2/JLV/Resources/Forms/AllItems.aspx

Join us again on July 24th!

Will have an in depth look at:



Session roadmap



THANK YOU!

Questions?

CONTACT INFORMATION

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DATABASE & METHODS CYBERSEMINAR SERIES

Next session:

July 24th at 1 pm Eastern

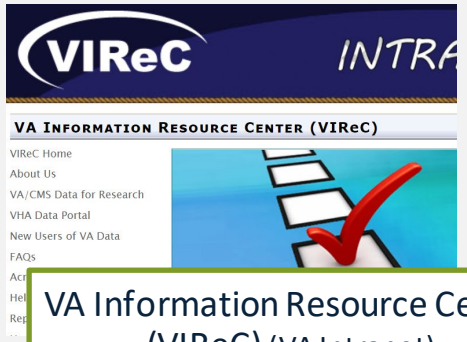
Applications for Joint Longitudinal Viewer (JLV) in Research: Day to Day Uses

Database & Methods

BONUS SLIDES

Resources for *VA Data Users*

Select image to visit page

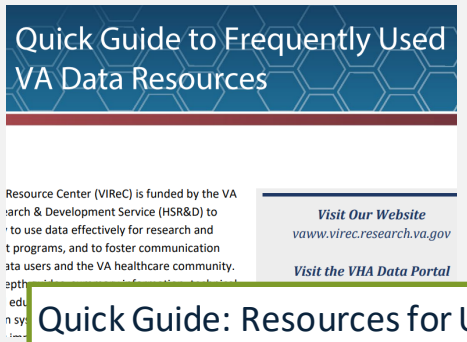


VA Information Resource Center (VIReC) (VA Intranet)

VHA Data Portal (VA Intranet)

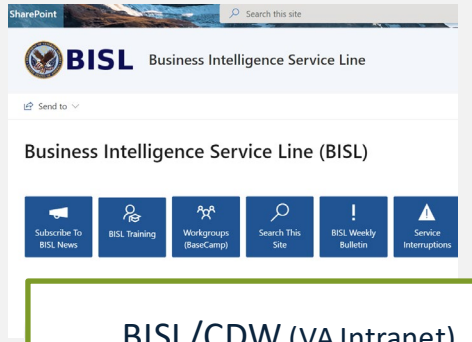
VIReC Cyberseminars

VA Millennium EHR Data Documentation (VA Intranet)



Quick Guide: Resources for Using VA Data (VA Intranet)

VA Informatics and Computing Infrastructure (VINCI) (VA Intranet)



BISL/CDW (VA Intranet)

Health Economics Resource Center (HERC) (VA Intranet)

Questions about using VA Data?

HSRData Listserv

- Community knowledge sharing
- ~1,400 VA data users
- Researchers, operations, data stewards, managers
- Subscribe by visiting vaww.virec.research.va.gov/Support/HSRData-L.htm (VA Intranet)

VIReC HelpDesk

- Individualized support
- Request Form: varedcap.rcp.vaec.va.gov/redcap/surveys/?s=KXMEN77LXK (VA Intranet)