

# Using VistAWeb for Stroke Quality of Care Research

Linda S. Williams, MD  
Research Coordinator, VA HSR&D Stroke QUERI  
Roudebush VAMC  
Professor of Neurology, Indiana University  
Indianapolis, IN



# Overview

- The INSPIRE QUERI SDP
- Why central chart review?
- Examples of using VistAWeb and CAPRI for research
- Lessons learned
- Questions

# Audience poll question 1

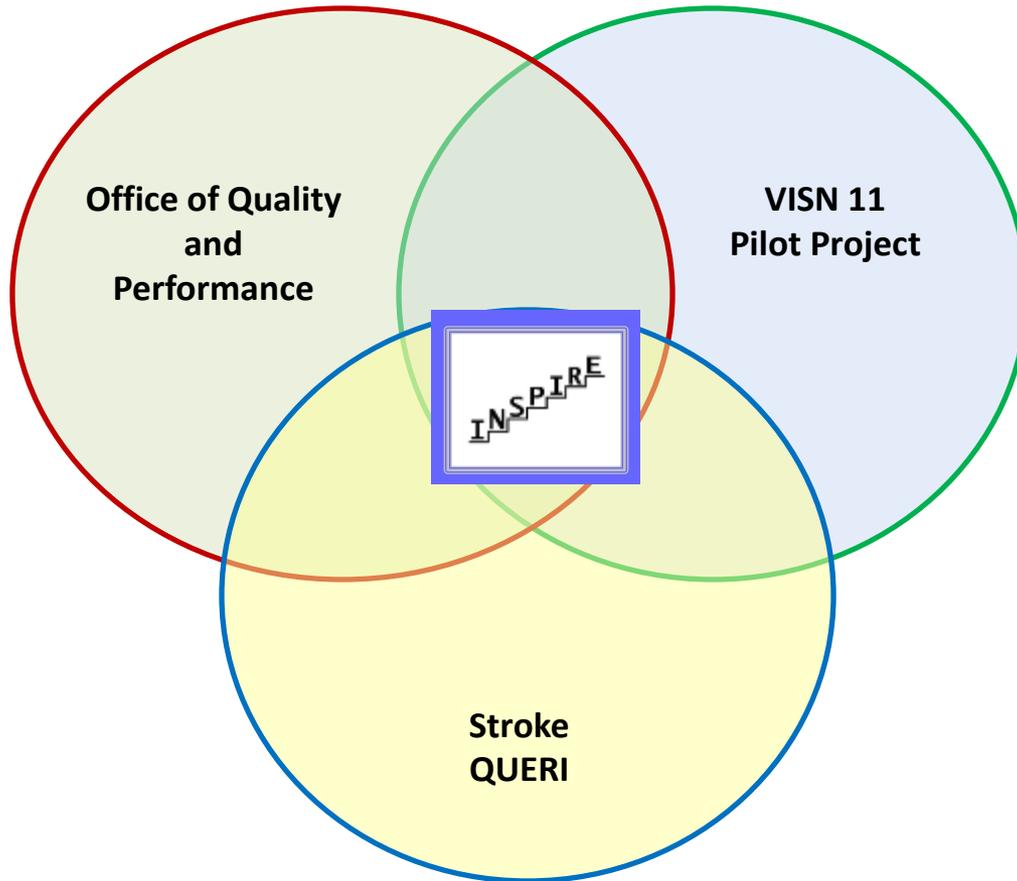
What is the coldest temperature (°F) you've experienced at your VA during 2014?

- a.  $\leq -20$
- b. -19 to -10
- c. -9 to 0
- d. +1 to 10
- e. +11 to 20
- f. +21 to 30
- g. +31 to 40
- h.  $>+40$



# INSPIRE SDP Background

Conducted 1st national measurement of inpatient stroke care in FY07-09



Chose improving stroke care as one element of their VISN-wide focus for FY08

Worked with OQP to develop and measure VA stroke care, used these data to pilot a Systems Redesign-based collaborative in VISN 11 FY08-09

# National Results by Phase of Hospitalization

Consolidated measure =  $\left[ \frac{\text{number of passes}}{\text{number of opportunities}} \right]$

## EARLY

(25%)

NIHSS (27.7%)

Dysphagia (23.4%)

tPA (8.4%)

## IN-HOSPITAL

(87%)

Antithrombotic (95.6%)

Pressure ulcer (91.8%)

Early ambulation (86.1%)

Rehab/FIM (86.0%)

Fall risk (79.3%)

VTE Prophylaxis (78.2%)

## DISCHARGE

(73%)

Antithrombotic (96.4%)

Smoking cessation (94.9%)

Lipids (82.1%)

Anticoag for AF (75.3%)

Stroke education (18.1%)

# INSPIRE SDP:

## Intervention for Stroke Performance Improvement using Redesign Engineering

- Study aims:

1. To evaluate the effect of public reporting on organizational change to improve stroke care quality in VA
2. To conduct a formative developmental evaluation in 12 of the largest volume VAMCs to understand organizational barriers and facilitators to the delivery of high-quality stroke care
3. To test a Systems Redesign/OSE-based intervention vs. performance feedback alone in improving 2 stroke indicators



# INSPIRE Intervention (Aim 3)

- 11 sites randomized to intervention vs. control
  - Sites with at least 50 stroke admissions annually
  - Intervention sites: In-person collaborative with OSE/SR training, followed by 6 months of coaching through rapid tests of change; monthly quality indicator feedback
  - Control sites: quarterly quality indicator feedback
- Quality indicators collected for 1 year prior and 12 months post-intervention
- Analyses:
  - Primary: improvement in individual and composite performance indicators from baseline to post-intervention
  - Secondary: temporal pace of change in performance, sustainability of change, qualitative assessments of local context and relationship to changes observed



# Quality indicator assessment

- Primary outcome is improvement in two QIs:
  - Venous thromboembolism (VTE) prophylaxis and dysphagia screening before oral intake
- Eight other Joint Commission-based QIs and one VA QI also collected
  - E.g. thrombolysis (tPA) for eligible patients, antithrombotic medication by hospital day two, discharge on cholesterol lowering medication



# Question 1: Why chart review?

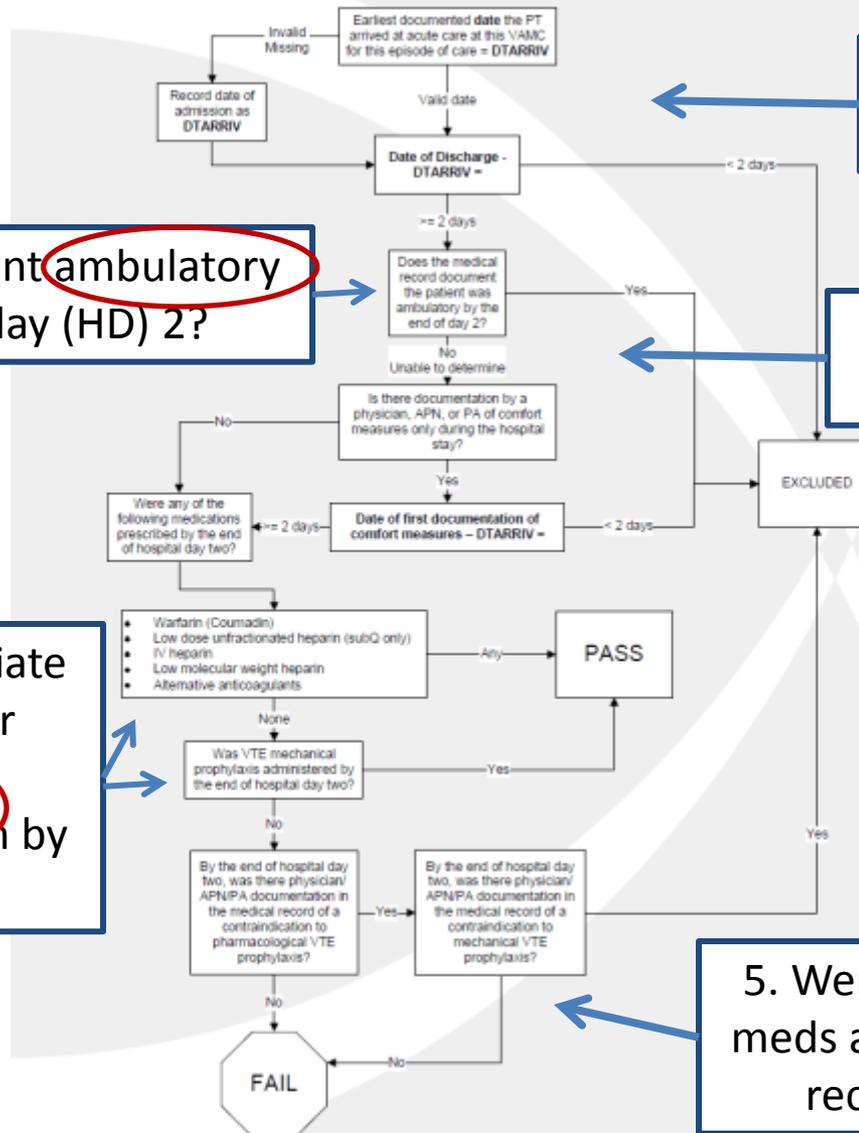
- None of the inpatient stroke quality indicators were being collected as part of routine VA care in either paper or electronic form
  - IPEC Stroke Module available for self-reporting 3 quality indicators as of July 2012
  - tPA for eligible patients, dysphagia screening, NIH Stroke Scale completion
  - FY 2013 had about 1/3 of facilities self-reporting

# Question 2: Why VistAWeb?

- Data required to construct the QIs are not part of VA EHR data
  - Many key elements not present in the EHR, e.g. dysphagia screening status, mechanical VTE prophylaxis devices, documentation of comfort measures do not have standard health factors across facilities

# VTE prophylaxis flowchart

## DVT Prophylaxis by End of Hospital Day 2



1. Was the patient hospitalized for at least 2 days?

2. Was the patient ambulatory by hospital day (HD) 2?

3. Were "comfort measures only" documented by HD2?

4. Were appropriate medications or mechanical prophylaxis given by HD2?

5. Were any contraindications to meds and mechanical prophylaxis recorded by the provider?

# Question 2: Why VistAWeb?

- Data required to construct the stroke QIs are not part of VA EMR data
- CDW/VINCI not operational at the time the study began
- Local chart review
  - Expense, training, quality control

# INSPIRE chart review planning

- 3.0 FTE chart reviewers working for 12 months:
  - 118+ variable chart review form, 11 quality indicators
    - Some multiple response variables (medications on admission and discharge)
  - Weekly abstractor meeting
    - Review questions, clarify and update manual, bring examples
  - Opened 2,305 charts
    - 1,600 full review
    - ~160 random 10% inter-rater reliability

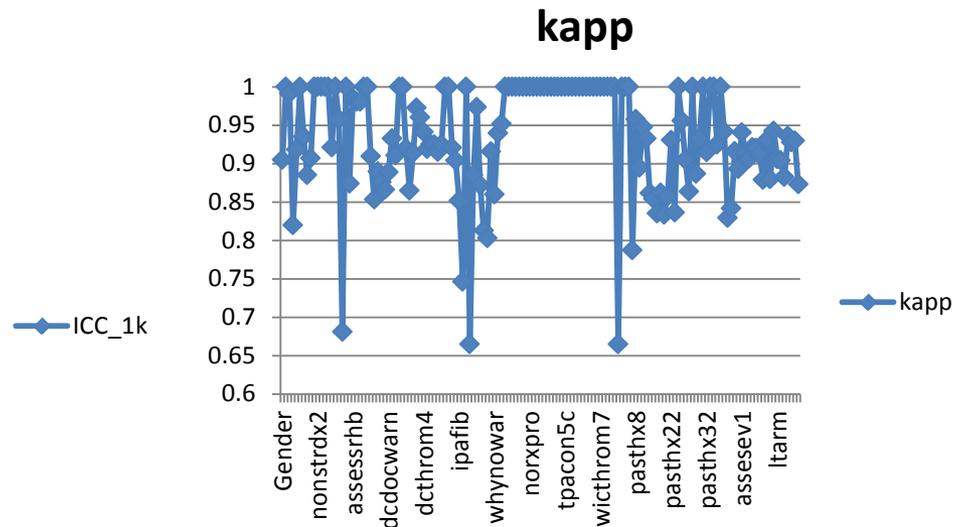
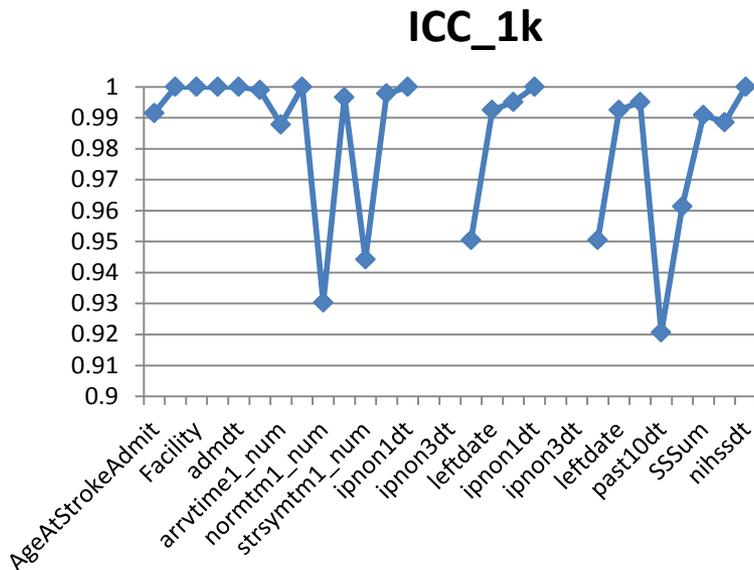
# Chart review expense example

- 11-site study, reviewing 2.5 years of stroke admissions (estimated 2,400 charts fully reviewed)
  - Site level load is approximately 75 stroke cases per year
  - Effort for that number of fully reviewed charts would be low (~2 charts per week)
  - Difficult to find sites willing and able to hire some small % of a research assistant
    - Even 25% of a GS7 RA at 12 sites (total 3.0 FTE) would not save any \$\$ compared to hiring only at the coordinating site
  - Training, maintaining, retaining all these personnel over a 3-year study is not feasible

# Central Chart Review Quality

– Data quality extremely high

- 113/118 variables > 0.8 ICC/kappa, none of these in the quality indicator algorithms (e.g. past history variable)
- QI result agreement (ineligible, passed, failed) excellent with kappas 0.84-0.96



# Advantages to using central chart review

- Access to multiple sites from a central location
  - Facilitates training, review, and quality control for chart abstractors
- Collecting text-based data elements with high inter-site variability (difficult to use text mining/NLP)
  - E.g. different staff and methods for dysphagia screening, assessment of ambulatory status, different locations/notes for recording stroke severity data or stroke education data
- Data elements that reflect clinician judgment
  - E.g. documentation of reasons not to anticoagulate
- Facilitates data feedback and discussion with site teams
  - Research team “sees” what the site team sees

# Audience poll question 2

**What experience do you have using central chart review for VA research?**

- a. Never tried to do this before
- b. Used VistAWeb
- c. Used CAPRI
- d. Used both VistAWeb and CAPRI
- e. Used some other platform for central chart review

# Options for central EHR review

- **VistAWeb:**
  - Provides read-only EHR access for a given patient across all sites of care for that patient
- **CAPRI: Compensation & Pension Record Interchange**
  - Provides read-only EHR access for a given patient at a single site at a time (can switch to other sites)
  - Has VistAWeb tab that can shift the viewer into VistAWeb view of the EHR

**Access request forms through the VA Data Portal:**

intranet only, contact [VIReC@va.gov](mailto:VIReC@va.gov) for link

# CAPRI vs. VistAWeb

Characteristic	CAPRI	VistAWeb
Requires installation of special software	Yes	No
Requires unique access/verify code pair (i.e., does not use local VistA access/verify code pair)	Yes	No
Views EHR one site at a time	Yes	No
Views EHR of all sites visited in one consolidated view, organized chronologically	No	Yes
Provides progress notes (i.e., text) search function	Yes	No
Provides seamless transition between EHR applications (CAPRI/VistAWeb)	Yes	No

**My personal recommendation: get access to both  
for maximum flexibility**

<http://www.virec.research.va.gov/CAPRI-VistAWeb/CAPRI-VistAWeb.htm>

# Examples: Possible considerations in using VistAWeb

- Variable time to load pages
  - Can take seconds to as much as 15 minutes to load notes from a selected date range
  - Varies by time of day, location, and ???
  - **This seems to be improved with the current access as a tab in CAPRI**
  - Text searching of some data, e.g., orders, note titles (not note text)
- Easy to make abstraction errors when separate locations share a single facility identifier
- If tracking transfers between facilities is important, then VistAWeb may make that more obvious, but you still have to be careful viewing notes from stations with multiple facilities!

# Example of admission data with site identifiers: VistAWeb

## Expanded ADT

## Expanded ADT

medical

Patient Selection

Patient Selection

Date Range:  Today  One Week  Two Weeks  One Month  Two Months  Six Months  One Year  Two Years

From: (mm/dd/yyyy) To: (mm/dd/yyyy)

Date Range:  Today  One Week  Two Weeks  One Month  Two Months  Six Months  One Year  Two Years  All Dates

From: (mm/dd/yyyy) To: (mm/dd/yyyy)

Print Report

Print Report

Tennessee Valley HCS

Atlanta, GA Tennessee Valley HCS

### Tennessee Valley HCS

### Tennessee Valley HCS

Printed for data from \*\*\*\*\* CONFIDENTIAL SUMMARY pg. 1 \*\*\*\*\*  
DOB:

Printed for data from \*\*\*\*\* CONFIDENTIAL SUMMARY pg. 1 \*\*\*\*\*  
DOB:

----- EADT - ADT History Expanded -----

----- EADT - ADT History Expanded -----

Eligibility: NSC, VA PENSION  
No stated disabilities

Eligibility: SC LESS THAN 50%  
Total S/C %: 30

VERIFIED

VERIFIED

Patient cared for at  
Nashville VAMC

NA-NEUROLOGY  
2N-MED-NA

20% S/C  
10% S/C

(ISC)

LOS: 3

ADM DIRECT

MEDICAL STEP DOWN  
PCU-MU

Patient cared for at  
Murfreesboro VAMC

MU-ACUTE MEDICINE  
1A (MED) -MU

Procedure DX ULTRASOUND-HEART  
Procedure PHYSICAL THERAPY NEC  
Procedure C.A.T. SCAN OF HEAD  
Procedure CONTR CEREBR ARTERIOGRAM  
Procedure MAGNET RESON IMAG BRAIN/BRAIN STEM  
Procedure J.A.T. SCAN OF HEAD

MU-ACUTE MEDICINE

LOS: 7

# Example of notes with site identifiers: VistAWeb

## HISTORY & PHYSICAL - INPATIENT

Site: Tennessee Valley HCS

Date: Author:

Location: 1A(MED)-MU

LOCAL TITLE: HISTORY & PHYSICAL - INPATIENT

STANDARD TITLE: PHYSICIAN H & P NOTE

DATE OF NOTE:

AUTHOR:

URGENCY:

Resident:

Intern:

CHIEF COMPLAINT: Left sid

HISTORY OF PRESENT ILLNESS

Patient is a MALE

CHF, obesity hyperlipidemi

Center in

administered by the family

patient had episodes of se

that the pain subsided and

the patient complained of

that he stopped breathing

The patient only stopped b

## NEUROLOGY GENERAL NOTE

Site: Tennessee Valley HCS

Date: Author:

Location: 2N-MED-NA

LOCAL TITLE: NEUROLOGY GENERAL NOTE

STANDARD TITLE: NEUROLOGY NOTE

DATE OF NOTE:

ENTRY DATE:

AUTHOR:

EXP COSIGNER:

URGENCY:

STATUS: COMPLETED

\*\*\* NEUROLOGY GENERAL NOTE Has ADDENDA \*\*\*

Chief Complaint: Acute stroke

HPI: This year-old MALE w/ hx HTN who started having difficulty talking and left sided weakness yesterday at about pm was brought to ER via ambulance. His initial SBP was which gradually went down at ER to He denied any trauma, headache, change in vision, LOC or seizure activity. On arrival to ER, his speech improved but left hand became heavy as per patient. Head CT was negative.

On initial exam, NIH stroke scale was 1, suggesting that he does not need thrombolytics.

# CAPRI Log In

VISTA Sign-on

MISUSE OF THIS SYSTEM AND INFORMATION IN THIS SYSTEM IS A FEDERAL CRIME  
\*\*\*\*\*  
NATIONAL VISTA SUPPORT (Including \*\*VBA USERS\*\*)  
NATIONAL HELP DESK  
8:00am-7:30pm Eastern Time, Monday-Friday 1-888-596-HELP (4357)  
If you have trouble with the toll-free number,  
call 205-554-3459 through 205-554-3465  
(Tuscaloosa OIFO)  
FORUM ACCESS AND VERIFY CODES ..1-888-596-4357 (8AM-7:30PM EASTERN)  
FORUM TECHNICAL SUPPORT ..1-888-694-9406 or 1-800-865-1855  
\*\*\*\*\*

Verify codes have been implemented to require strong passwords. Passwords shall be at least eight characters in length, and contain three of the following four kinds of characters: letters (upper case and lower), numbers, and, characters that are neither letters nor numbers (like "#", "@" or "\$"). Samples would be 123ABC\$\$, ABC123#\$, or \$\$XYZ987.  
NOTE: lower-case letters will be made upper-case.



Access Code:   OK

Verify Code:   Cancel

Change Verify Code

Server:  Volume:  UCI:  Port:

# CAPRI Patient Selection Screen

**Patient Selector**

Patient ID:

- CPRIPATIENT\_FIVE
- CPRIPATIENT\_FOUR
- CPRIPATIENT\_ONE
- CPRIPATIENT\_SIX
- CPRIPATIENT\_THREE
- CPRIPATIENT\_TWO**

**Selected Patient**

CPRIPATIENT\_TWO  
SSN: [REDACTED]  
MALE  
[REDACTED]  
Ward:  
Claim Number: [REDACTED]  
ICN: [REDACTED]

Other Facilities Visited

Enter New Pt.

# CAPRI view of a patient's record

The screenshot shows the CAPRI software interface. At the top, the title bar reads "CAPRI Connected To". Below it is a menu bar with "File", "Edit", "Tools", and "Help". A toolbar contains "Other Facilities Visited", "SSN# [redacted]", and "ICN [redacted]". A tabbed interface below the toolbar includes "C&P Exams", "7131 Request", "Reports", "Admin", "Health Summaries", "Clinical Documents", "C&P Worksheets", and "VistAWeb". The "VistAWeb" tab is circled in red, and a blue callout box with a red arrow points to it, containing the text "VistAWeb tab".

The main window displays a list of 11 items on the left, including notes from 2000 and 1999. The selected note is displayed in the right pane. The clinical note text is as follows:

due to another pt. waiting to see her. Pt. still sleeping.  
1330 Pt. awakened. Took a shower.  
1400 De'd amb. with all belongings to the homeless program SU ( [redacted] ). Call made to Ray, got answering machine and left a message he would be coming upstairs.

VITAL SIGNS:

Time	Temp	Pulse	Resp	BP	SaO2

MSW [redacted] completed

DISPOSITION:  
Level of Care: 2  
MODE of EXIT:  
Walked.  
Condition: Improved.  
Follow-up to Mental Health Provider? No

Discharged to 4C ( Homeless program )

/es/ [redacted]  
RN, CRN, CCRN  
Signed: [redacted]

At the bottom of the interface, there is a "Divisions" section, a search bar with "Find: mental health" and a "Search" button, and a status bar with various icons and the text "Ready".

FEB 26, 2014@12:19, MH SUICIDE PREVENTION NOTE, CHRISTIN  
 FEB 25, 2014@15:26, PHARM-ANTICOAGULATION PROGRESS NO  
 FEB 21, 2014@10:29, Addendum to MH SUICIDE PREVENTION PHO  
 FEB 21, 2014@09:14, MH SUICIDE PREVENTION PHONE, CHRISTI  
 FEB 20, 2014@08:13, PHARM-PHARMACY PHONE, VAUNDA G PRI  
 FEB 19, 2014@08:41, MH SUICIDE PREVENTION NOTE, CHRISTIN  
 FEB 18, 2014@15:49, Addendum to PHARM-ANTICOAGULATION PR  
 FEB 18, 2014@15:07, PHARM-ANTICOAGULATION PROGRESS NO  
 FEB 18, 2014@13:38, PHARM-PHARMACY PHONE, MOLLY E BRUV  
 FEB 18, 2014@13:21, SLEEP MED TELEPHONE NOTE, MARJORIE  
 FEB 18, 2014@09:56, NURSING NOTE OUTPATIENT, INDIA MARIE  
 FEB 14, 2014@14:05, PSYCHIATRY TELEPHONE TRIAGE, HEATHE  
 FEB 12, 2014@09:33, MH SUICIDE PREVENTION PHONE, CHRISTI  
 FEB 10, 2014@14:12, NURSING OUTPATIENT NOTE, TERESA D W  
 FEB 10, 2014@11:28, PHARM-ANTICOAGULATION PROGRESS NO  
 FEB 6, 2014@12:50, MH SUICIDE PREVENTION NOTE, Judi A. Gree  
 FEB 5, 2014@09:09, PC-HISTORICAL NOTE, S  
 FEB 5, 2014@08:50, Addendum to GENERAL M  
 JAN 31, 2014@15:39, GENERAL MEDICINE - TELEPHONE TRIAGE,  
 JAN 31, 2014@16:27, Addendum to GENERAL MEDICINE - TELEPH  
 FEB 4, 2014@14:01, Addendum to PHARM-ANTICOAGULATION PRO  
 JAN 29, 2014@11:32, PHARM-ANTICOAGULATION PROGRESS NO  
 JAN 29, 2014@15:46, Addendum to PHARM-ANTICOAGULATION PR  
 JAN 30, 2014@16:30, TEL TRIAGE AFTER HOURS CALL CENTER N  
 JAN 29, 2014@10:08, MH SUICIDE PREVENTION NOTE, CHRISTIN  
 JAN 28, 2014@13:27, PMRS CHIROPRACTOR CONSULT RESULT N  
 JAN 26, 2014@23:56, GI LETTERS, JI YOUNG BANG,BANG,JI YOUN  
 JAN 26, 2014@23:55, Addendum to COLONOSCOPY, JI YOUNG BAN  
 JAN 14, 2014@10:30, COLONOSCOPY, CHARLES J KAHN MD,KAHI,J  
 JAN 25, 2014@12:54, Addendum to PHARM-ANTICOAGULATION PR  
 JAN 22, 2014@11:17, PHARM-ANTICOAGULATION PROGRESS NO  
 JAN 24, 2014@15:30, CBEC HOME OXYGEN CARE COORDINATION  
 JAN 24, 2014@08:56, PHARM-PHARMACY PHONE, RACHEAL A MC  
 JAN 23, 2014@08:00, PROSTHETICS/ORTHOTICS LAB, DENNIS B  
 JAN 22, 2014@16:06, PSYCHIATRY INDIVIDUAL PSYCHOTHERAPY  
 JAN 21, 2014@13:22, SLEEP MED PAP CLINIC NOTE, LESLIE ADRL  
 JAN 21, 2014@13:07, MH SUICIDE PREVENTION NOTE, CHRISTIN  
 JAN 17, 2014@10:09, Addendum to PSYCHIATRY MEDICATION MA  
 JAN 8, 2014@09:16, PSYCHIATRY MEDICATION MANAGEMENT, M  
 JAN 16, 2014@10:03, Addendum to PSYCHIATRY MEDICATION MA  
 JAN 16, 2014@10:06, Addendum to PSYCHIATRY MEDICATION MA  
 JAN 16, 2014@10:09, Addendum to PSYCHIATRY MEDICATION MA  
 JAN 16, 2014@14:39, Addendum to PSYCHIATRY MEDICATION MA  
 JAN 16, 2014@13:51, SLEEP MED SMARTCARD DOWNLOAD NOTI  
 JAN 16, 2014@09:07, MH SUICIDE PREVENTION PHONE, CHRISTI  
 JAN 15, 2014@08:47, GI PROCEDURE FOLLOW UP NOTE, ROBIN I  
 JAN 15, 2014@08:46, MH SUICIDE PREVENTION NOTE, CHRISTIN  
 JAN 14, 2014@12:31, NURSING MODERATE SEDATION POST PRC  
 JAN 14, 2014@12:17, ENDOSCOPY PROCEDURES PATIENT DISC  
 JAN 14, 2014@11:29, ENDOSCOPY PROCEDURES RN INTRAPROC  
 JAN 14, 2014@10:59, NURSING MODERATE SEDATION PROCEDU  
 JAN 14, 2014@10:28, IMED CONSENT, ANDREA S SHIN MD,SHIN,  
 JAN 14, 2014@10:18, MODERATE SEDATION H&P NOTE, ANDREA  
 JAN 14, 2014@10:05, Addendum to NURSING MODERATE SEDATIC  
 JAN 14, 2014@09:48, NURSING MODERATE SEDATION ASSESSM  
 JAN 13, 2014@15:10, Addendum to GENERAL MEDICINE - TELEPH  
 JAN 13, 2014@12:23, GENERAL MEDICINE - TELEPHONE TRIAGE,  
 JAN 13, 2014@12:02, Addendum to SLEEP MED PAP CLINIC NOTE,  
 DEC 2, 2013@14:46, SLEEP MED PAP CLINIC NOTE, PRISCILLA L

# Example of text Search Function within notes in CAPRI

In the "Clinical Documents/Notes" tab, all notes from one facility are shown



As part of ongoing suicide prevention case management this writer reviewed veterans chart and treatment activity. Writer will remain available throughout the duration of the Category I PRF and address any needs that may arise and as requested by veterans treatment providers.

FEB 5, 2014@13:30, MENTAL HEALTH CONSULT NOTE, LINDA S. KR...  
 NOV 19, 2013@14:27, CONSULT RESULT COMMUNITY REFERRAL AL...  
 JUL 23, 2013@15:12, BLOOMINGTON-CBOC NP NOTE, THERESA A BC...  
 JUL 19, 2011@13:16, PV RESIDENT CLINIC NOTE, GERALD MILICK...  
 JUL 19, 2011@12:19, PV LAB-CAROTID, RUTH M MYERS,MYERS,RUT...  
 JUN 24, 2011@14:09, SPEECH PATHOLOGY NOTE, JENNIFER C OWE...  
 JUN 20, 2011@15:08, BLOOMINGTON-CBOC NP NOTE, THERESA A BC...  
 JUN 16, 2011@10:36, RECREATION THERAPY-DISCHARGE NOTE, DA...  
 JUN 13, 2011@12:38, RITS/POLYTRAUMA DISCHARGE INSTRUCTION...  
 JUN 13, 2011@09:53, SPEECH CONSULT RESULT, JENNIFER C OWEN...  
 JUN 13, 2011@09:16, RECREATION THERAPY...  
 JUN 12, 2011@16:22, PHYSICAL THERAPY CON...  
 JUN 10, 2011@13:52, SICU INTERDISCIPLINARY PROGRESS NOTE, A...  
 JUN 10, 2011@11:38, SPEECH PATHOLOGY/MODIFIED BARIUM SWA...  
 JUN 9, 2011@15:26, SPEECH PATHOLOGY NOTE, JENNIFER C OWEN...  
 JUN 9, 2011@12:53, SICU INTERDISCIPLINARY PROGRESS NOTE, AN...  
 JUN 9, 2011@09:34, PHYSICAL THERAPY-PROGRESS NOTE, KACIE M

4. OCCLUSION AND STENOSIS OF **CAROTID** ARTERY WITH CEREBRAL INFARCTION (ICD-9-CM 433.
5. ANNUAL ROUTINE MEDICAL EXAM
6. CARPAL TUNNEL SYNDROME \* (ICD-9-CM 354.0)
7. HYPERLIPIDEMIA \* (ICD-9-CM 272.4)

Using the search term "carotid" (bottom right corner) only notes containing this word are shown, and the word is highlighted within the note.

ACTIVE NON-VA MEDICATIONS	STATUS
1) NON-VA ASPIRIN 325MG EC TAB 325MG ORALLY EVERY DAY	ACTIVE

5 TOTAL MEDICATIONS

Vet reports little history of substance use. He states he first began drinking alcohol in his late teens, and for many years drank approximately weekly. He states that currently, he drinks "a couple of times a year." He states beer was always his drink of choice when he drank, and he "always drank 2 beers." Despite this, he reports that he had one DUI in the past. He reported it was about 15 years ago, but his daughter states it was more like 30 years ago ("more than 15 years before he retired"). He denies any history of illicit substance use or of misuse of prescription medications. He denies history of tobacco use.

PERTINENT FAMILY HISTORY

- mother died at age 89 due to "mostly old age"
- Alzheimer's disease (brother)
- dementia (?) - sister
- much of family history is unknown, as Vet reports he has no contact with his father's side of the family.

BEHAVIORAL OBSERVATIONS

Vet was cooperative, pleasant, and appropriate throughout the interview, which was completed first. He then completed the RBANS with apparent reasonable effort and engagement, though he had difficulty following or remembering instructions at times. Upon finishing that test, he immediately asked if he was finished and expressed a desire to go home. He agreed to complete additional tests before leaving; he was initially presented with the Shipley-2 Vocabulary test and was asked if he could see and read it. He stated he could, but when

**Find**

Find: aspirin

Match whole word only  Match case

Highlight all matches

Previous Next

### Order Summary

medical record

**vistaWEB**

Logoff

- VTA
- Sites
- Care Team
- Allergies\*†
- Appointments
- Patient Information
- Visits/Admissions
- Dietetics
- Consults and Procedures†
- Consults (DoD Remote Data Only)
- Discharge Summaries†
- Laboratory †
- Anatomic Path Reports
- Medicine †
- Orders
  - Current Orders
  - Daily Order Summaries
  - Order Summary
  - Chart Copy Summary
- Outpatient Encounters/GAF
- Pharmacy †
- Problem List†
- Progress Notes†
- Other Notes
- Radiology †
- Surgery Reports†
- Vital Signs\*†
- Health Summaries (Non-VA) for TREATMENT only†
- Health Summaries (IND)

Refresh Patient Data

+ Pages with HDR data  
+ Pages with Non-VA data

Warning! Avoid using "Back" button

ORDER SUMMARY

06/13/11 dc Discontinue Additional Diet Order: LOHMAN, J 06/10/11 06/13  
11:21 Please send chilled Ensure plus with ATTENDING 17:04 11:22  
meals.  
<Requesting Physician Cancelled>

JML Nrs:SS Typ:ELECTRONICALLY ENT Sgn:NOT REQUIRED

06/13/11 dc MECHANICAL Diet " 06/13/11 06/14  
11:20 <Discharge> " 11:20 10:42

JML Nrs:SS Typ:ELECTRONICALLY ENT Sgn:ELECTRONIC

06/13/11 dc Discontinue ASPIRIN TAB " 06/10/11 06/13  
11:14 325MG PO DAILY " 17:04 11:14  
<Requesting Physician Cancelled>

JML Nrs:SS Typ:ELECTRONICALLY ENT Sgn:ELECTRONIC

06/13/11 dc ASPIRIN TAB, EC " 06/13/11 06/14  
11:14 325MG PO DAILY " 11:14 10:42  
<AUTO DC>

The find command can also be used with some types of data in VistAWeb, here for example to search within the orders for "aspirin"

# Lessons learned about using CAPRI/VistAWeb for research

- **Optimal way to collect complex clinical chart-recorded data**
  - Consider complexity and data quality requirements
  - Develop standard chart review manual and update with local examples as they are noted
  - Standardize search features and terms
- **Increase estimated time per chart review** from local CPRS by some small factor (10-15%) to take into account view switching and page loading issues
  - However, additional search features may end up saving time depending on what you are looking for

# Lessons learned about using VistAWeb for research

- **Organize process for access requests**
  - Designate one person from your study to submit and stay in communication via the DART process
- **Keep your chart reviewers happy!**
  - Breaks for other types of work
  - Shared positions if possible
  - Regular team meetings to discuss questions/resolve differences
  - Prizes for “Best Story of the Week”

# Resources/Help

- VHA Data Portal: Access for CAPRI and VistAWeb
  - intranet only, contact [VIRec@va.gov](mailto:VIRec@va.gov) for link
- VistA Documentation Library:
  - <http://www.va.gov/vdl/default.asp>
- VIRec tutorial “Using VistAWeb for the First Time for Research”:
  - intranet only, contact [VIRec@va.gov](mailto:VIRec@va.gov) for link

Thanks to the most amazing group of chart reviewers and data managers:



# INSPIRE Study Team

- Investigators:
  - Linda Williams, MD
  - Teresa Damush, PhD
  - Ginger Daggett, PhD
  - Marianne Matthias, PhD
  - Edward Miech, EdD
  - Laurie Plue, MA
  - Joe Ross, MD, MS
  - Heather Woodward-Hagg, MS
- Biostats and Data Management:
  - Zhangsheng Yu, PhD
  - James Slaven, MS
  - Jeff Barnd, MS
  - Jeff Fahner, MS, BSN
- Engineers:
  - Balmatee Bidasee, PhD
  - Marianne Pilat, PhD
  - Angie Howard, BSN
- Project management:
  - Dani Sager
  - Ginger Daggett
- Research assistants/chart reviewers:
  - Catherine Bauer-Martinez
  - Nick Burris
  - Flossy Lincoln
  - Jenn Myers
  - Annie Plahitko
  - Josh Robinson

# Questions?



**It's QUESTION TIME!!**