Update on the Care Assessment Need Score – CAN 2.0 and the Patient Care Assessment System (PCAS)

SD Fihn MD MPH and T Box PhD

Office of Analytics and Business Intelligence
Veterans Health Administration

January 2016
Knowledge of a patient’s clinical characteristics and risk of adverse event can help target services.

**Broad range of clinical programs designed to improve care for veterans with complex chronic illness:**

- Home-based primary care
- Case-management
- Specialty clinics, e.g., heart failure
- Telehealth
- Palliative care

Providers can’t accurately predict patients at highest risk of deterioration.

PACT RN Care Managers charged to coordinate care.

No systematic way to identify Veterans who might benefit most → predictive analytics using data from EHR.
Development of the Care Assessment Need (CAN) Score

- 4,505,501 veterans enrolled in primary care who had ≥1 visit
  - Validated models in literature → Benchmarking, Candidate covariates

- Standard and multinomial (polytomous) logistic regression
  - Conjoint modeling of hospitalization/death w/in 90d, 1-yr
  - 90 terms from 7 domains in CDW

- Probability of admission or death within a specified time period (90 days or 1 year) converted to percentile, (0 = lowest risk, 99 = highest risk) in relation to all other enrolled Veterans

Poll Question

• I have used the CAN score in my research

  – Yes

  – No
CAN 2.0

- 36 input variables as compared with about 90 in the CAN V1.0 models.
  - a composite SES index derived from the US CENSUS American Community Survey.
  - Rank and Service Branch from the VA/DOD Identity repository (VADIR).
- CAN 2.0 models have improved performance over the CAN 1.0
  - Higher concordance (C-statistic)
  - Better calibration
- The weekly report provides CAN scores and probabilities for 3 outcomes:
  - Mortality
  - Hospitalization
  - Mortality or Hospitalization
- Mortality is now predicted irrespective of its location of occurrence (in or outside of a hospital).
  - CAN 1.0 defined mortality as an out of hospital event, with all others considered hospitalizations.
## Predictive Modeling:
### Care Assessment Need (CAN) Score

**Demographics**  
- Age Group  
- Air Force Flag  
- Eligibility (1, [2-4], 5+)  
- Rank Flag (Officer vs Enlisted)  
- Marital Status  
- Priority (Max)  
- Sex  

**Vital Signs**  
- BMI (≥40)  
- Weight Variability  
- HR (80-60)  
- Resp Rate (≥20)  
- Sys & Dias BP  

**Utilization**  
- No. Hospital/Bed Days  
- No. Medical Providers  
- No. Visit Type:  
  - All  
  - Inpatient  
  - Emergency Care  
  - Cardiology  
  - CT  
  - Mental Health  
  - Other Non-Face  
- Primary Care (PC)  
- Phone Care  
- PC Phone Care  
- No. 11-20min Phone  
- No. 21-30min Phone  
- No. Est Office Visit  

**Chronic Illness**  
- Deyo-Charlison Score  
- HCCs:  
  - AFib and CHF  
  - Dementia  
  - Mental Health and PTSD  
  - Metastatic Cancer  
  - Alcohol  
  - Chronic Airway Obstruction  

**Lab/Radiology**  
- No. Albumin  
- No. Blood, Urine, Nitrogen  
- Lymphocytes (Low)  
- Red Blood Cells (Low)  
- Sodium (Low)  
- White Blood Cells (High)  
- No. Troponin  
- No. Chest X-Ray  

**Pharmacy**  
- Antipsychotic  
- Beta-blocker  
- Benzodiazepine  
- Beta Agonist Nebulizer  
- Furosemide  
- Statin  
- Metformin  
- NSAID  
- No. of Drugs Filled  
- Furosemide Tablets  

**Text Notes**  
- No. Consent Notes  
- No. Telephone Notes
Veterans in highest %ile of risk have 58% probability of admission, 23% probability of death, and 64% probability of either event.
Diagnoses for Pts with Highest CAN Scores (>97th %ile) & 10 Most Common VA Discharge Diagnoses

<table>
<thead>
<tr>
<th>Hypertension</th>
<th>Affective psychoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>Heart Failure</td>
</tr>
<tr>
<td>PTSD</td>
<td>Chr ischemic heart disease</td>
</tr>
<tr>
<td>Depressive Disorder</td>
<td>Respiratory &amp; other chest sx</td>
</tr>
<tr>
<td>Chr Ischemic Hrt Dis</td>
<td>Pneumonia</td>
</tr>
<tr>
<td>COPD</td>
<td>Cardiac dysrhythmias</td>
</tr>
<tr>
<td>CHF</td>
<td>Schizophrenic disorders</td>
</tr>
<tr>
<td>Lung Cancer</td>
<td>Chronic bronchitis</td>
</tr>
<tr>
<td>Alcohol Dependence</td>
<td>Alcohol dependence</td>
</tr>
<tr>
<td>ESRD</td>
<td>General symptoms</td>
</tr>
</tbody>
</table>

VETERANS HEALTH ADMINISTRATION
Care Assessment Need (CAN) Report – access from EHR

CARE ASSESSMENT NEED SCORE
For FIHN, STEPHAN D
Score As Of: 11/9/2012
Almanac Data as of: 10/31/2012

LOCAL TITLE: PRIMARY CARE TELEPHONE CONTACT NOTE
STANDARD TITLE: PRIMARY CARE TELEPHONE ENCOUNTER NOTE
DATE OF NOTE: NOV 14, 2012@13:16 ENTRY DATE: NOV 14, 2012@13:17
AUTHOR: EXP COSIGNER:
URGENCY: STATUS: COMPLETED

Received call from stating there has been a change in 's condition. He is unresponsive and in respiratory distress probably due to pneumonia. They have activated the comfort kit which includes morphine, antivert, tylenol supps., atropine eye gtts. and compazine supp. The physician has ordered Rocephin one gram with lidocaine I.M. times one. Family does not want him transported to the hospital.
May underestimate usage because nurse care managers download data for several providers & data can be downloaded directly from regional data warehouses.
Mean Number of Distinct Drugs by CAN Score
Mean Number of Providers by CAN Score
Percent of Patients in Telehealth

Telehealth enrollments as of 10/28/2015.
Patients With Select Conditions in Telehealth

Telehealth enrollments as of 10/28/2015.
Patients Receiving Home-Based Primary Care

HBPC defined as patients with Stop Code (Credit or Clinic) in (156,157,170,171,172,173,174,175,176,177)
Patients With Selected Conditions in HBPC

HBPC defined as patients with Stop Code (Credit or Clinic) in (156,157,170,171,172,173,174,175,176,177)
Patients Receiving Palliative Care

Palliative Care defined as patients with Stop Code (Credit or Clinic)=353 AND CPT codes in (99241-99245, 99251-99255)
Patients With Selected Conditions in Palliative Care

Palliative Care defined as patients with Stop Code (Credit or Clinic)=353 AND CPT codes in (99241-99245, 99251-99255)
E/M Outpatient, Inpatient Consult

VETERANS HEALTH ADMINISTRATION
Hospice defined as patients with Hospice Clinic (Primary or Secondary) Stop Codes (Stop Code (Credit or Clinic)=351 AND CPT codes in (99241-99245, 99251-99255)
Few Patients with High Scores Referred to Coordination Programs Telehealth, HBPC, Palliative Care, and Hospice

Palliative Care
Score ≥ 95 -- 5,000 of 268,833 total patients (1.9%)

Hospice
Score ≥ 95 -- 775 of 268,833 total patients (0.2%)
Use of High Level Analytic Data for Population Management and Resource Planning

1-yr likelihood of admission
- 1.86% - 5.93%
- 5.94% - 7.00%
- 7.01% - 7.97%
- 7.98% - 9.21%
- 9.22% - 16.99%

1-yr likelihood of admission or death
- 2.37% - 9.03%
- 9.04% - 10.01%
- 10.02% - 10.96%
- 10.97% - 12.18%
- 12.19% - 19.34%

Fihn, et al
Health Affairs 2014
Issues with CAN Score

• Heterogeneity of patients
  – D Zulman, et al experience with Primary Care Intensive Management (PIM)
  – K Prenovost, et al work on latent class analysis

• Stability and trajectory of CAN
  – G Schwartz et al findings that very high risk is transient for most patients
Poll Question

• I plan to use the CAN score in my research
  – Yes
  – No
Resources

• For general information regarding CAN score
  – Stephan.Fihn@va.gov

• For information about CAN reporting
  – Freddy.Kirkland@va.gov

• For technical information about CAN score
  – Gregory.Schwartz3@va.gov
A Point-of-Care Clinical Application for Team-Based Primary Care

Tamara L. Box, PhD
January 2016

VHA OFFICE OF ANALYTICS AND BUSINESS INTELLIGENCE
The **Patient Care Assessment System** is a **web-based application** to provide **Patient Aligned Care Teams (PACT)** with tools to **identify, manage, and coordinate care** for their paneled patients.

*Special emphasis is given to high risk patients and sub-populations.*
PROVIDING DATA IN ONE VIEW

CDW

VISTA

ADMIN

CAN

NON-VA

MODELS
PROVIDING DATA IN ONE VIEW
POLL

What is your primary role in the VA?

A. PACT Physician
B. PACT Nurse
C. Other Clinical Staff
D. Investigator or Research Staff
E. Other
HOW DO I GET TO PCAS?

• **Primary Care Almanac** *(coming soon!)*
  – Direct URL
  – Through CPRS

• **No Special Login Required**
  – If you are a member of a PACT team, the application will recognize you!

• Available nationwide; over 1000 visits in the last 10 months from nearly every VISN.
Manage Patients

Hide Page Overview...

Use the fields below to filter your panel to find a specific patient or group of patients. Or, use the risk-based panel filters on the right to quickly locate a group of patients. Each underlined column is sortable. Once you have found your patient, simply click on their name to navigate to their PCAS record.

<table>
<thead>
<tr>
<th>Filter Panel By Patient(s) or Appointment:</th>
<th>Or Filter Panel Based on Risk Characteristics:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search By Name:</td>
<td>Manual High Risk Flag</td>
</tr>
<tr>
<td>Search By Last 4 SSN:</td>
<td>Top CAN Scores (1yr. death or admission model)</td>
</tr>
<tr>
<td>Search By Next Appointment Date:</td>
<td>Top Clinical Priority OR Select</td>
</tr>
<tr>
<td>Start Date:</td>
<td>Received Homeless Services (last 12 Months)</td>
</tr>
<tr>
<td>End Date:</td>
<td>Suicide Risk</td>
</tr>
<tr>
<td></td>
<td>Home-Based Primary Care</td>
</tr>
<tr>
<td></td>
<td>Home Telehealth Participants</td>
</tr>
<tr>
<td></td>
<td>Palliative Care</td>
</tr>
<tr>
<td></td>
<td>Hospice Care</td>
</tr>
<tr>
<td></td>
<td>Heart Failure Patients with an Admission in Last 30 Days</td>
</tr>
<tr>
<td></td>
<td>BDOC</td>
</tr>
<tr>
<td></td>
<td>DVS</td>
</tr>
</tbody>
</table>

Clear Filter
### Manage Patients

Use the fields below to filter your panel to find a specific patient or group of patients. Or, use the risk-based panel filters on the right to quickly locate a group of patients. Each underlined column is sortable. Once you have found your patient, simply click on their name to navigate to their PCAS record.

<table>
<thead>
<tr>
<th>Last 4 SSN</th>
<th>Patient Name</th>
<th>CAN</th>
<th>Clinical Priority</th>
<th>Clinical Priority Reason</th>
<th>High Risk Flag</th>
<th>High Risk Reason</th>
<th>VA Last Appointment</th>
<th>VA Next Appointment</th>
<th>Care Plan Reevaluation Date</th>
<th>Care Plan</th>
<th>Tasks</th>
<th>Team</th>
<th>Active or Pending Contacts</th>
<th>BDCC</th>
<th>DSS Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>####</td>
<td>PATIENT A</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15 Jan 2016</td>
<td>19 Jan 2016</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>Blue Team</td>
<td>3</td>
<td>20</td>
<td>$41,237.23</td>
</tr>
<tr>
<td>####</td>
<td>PATIENT B</td>
<td>95</td>
<td>7</td>
<td>Hemodialysis</td>
<td>Y</td>
<td>Dialysis</td>
<td>13 Jan 2016</td>
<td>20 Jan 2016</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>Blue Team</td>
<td>2</td>
<td>0</td>
<td>$0.00</td>
</tr>
<tr>
<td>####</td>
<td>PATIENT C</td>
<td>97</td>
<td>10</td>
<td>PVD, CAD, Carotid Artery Dz, COPD, Tobacco Use, Bipolar Disease</td>
<td>Y</td>
<td></td>
<td>04 Jan 2016</td>
<td>25 Jan 2016</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>Green Team</td>
<td>1</td>
<td>3</td>
<td>$10,998.00</td>
</tr>
<tr>
<td>####</td>
<td>PATIENT D</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>08 Dec 2015</td>
<td>21 Jan 2016</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>Blue Team</td>
<td>1</td>
<td>0</td>
<td>$40.00</td>
</tr>
</tbody>
</table>

[Clear Filter]
### Risk Characteristics

- Patient Demographics
- Secondary Contacts
- Team Information

### Outpatient Encounters
- Inpatient Discharges
- Labs and Immunizations
- Health Factors
- Vital Signs
- Medications

### Patient Consults

### TASKS and REMINDERS

<table>
<thead>
<tr>
<th>Home Telehealth Participant</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palliative Care</td>
<td>No</td>
</tr>
<tr>
<td>Hospice Care</td>
<td>No</td>
</tr>
<tr>
<td>Spinal Cord Injury</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>Agent Orange Exposure Documented</td>
<td>No</td>
</tr>
<tr>
<td>Heart Failure Re-Admission 30-day Watch</td>
<td>No</td>
</tr>
</tbody>
</table>
### Risk Characteristics

Statistical, clinical and cost risk factors are provided on this page. Please note: tooltips (?) are provided to help you understand the data. Hover over the (?) to display the tip and click on the (?) to make it disappear.

#### Assign Clinical Priority & High Risk Flag

**CARE ASSESSMENT NEEDS SCORES [?]**

<table>
<thead>
<tr>
<th>CAN Scores (1-99)</th>
<th>Admission</th>
<th>Combined Event (Death or Admission)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 day Score</td>
<td>97 (19%)</td>
<td>97 (20%)</td>
</tr>
<tr>
<td>1 year Score</td>
<td>97 (42%)</td>
<td>97 (53%)</td>
</tr>
</tbody>
</table>

| Clinical Priority (1-10) [?] | 7 |
| Manual High-Risk Flag [?]   | Yes |
| Risk Flag Reason [?]        | Mild dementia |

- National BDOC [?] 3
- Polypharmacy Count [?] 16
- Pain Scale [?] 0
- OEF/OIF/OND [?] No
- Suicide Risk [?] No
- Received Homeless Services (last 12 months) [?] NULL
- Home-Based Primary Care [?] No
- Home Telehealth Participant [?] No
- Palliative Care [?] No
- Hospice Care [?] No
- Spinal Cord Injury [?] NOT APPLICABLE
- Agent Orange Exposure Documented [?] No
- Heart Failure Re-Admission 30-day Watch [?] No
### Risk Characteristics

**Patient Name:** Test Veteran

#### Key Clinical Risk Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypharmacy Count</td>
<td>0</td>
</tr>
<tr>
<td>Pain Scale</td>
<td>6</td>
</tr>
<tr>
<td>OEF/OIF/OND</td>
<td>No</td>
</tr>
<tr>
<td>Suicide Risk</td>
<td>No</td>
</tr>
<tr>
<td>Received Homeless Services (last 12 months)</td>
<td>Yes</td>
</tr>
<tr>
<td>Home-Based Primary Care</td>
<td>No</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>No</td>
</tr>
<tr>
<td>Home Telehealth Participant</td>
<td>No</td>
</tr>
<tr>
<td>Heart Failure Dx with Admission in Last 30 Days</td>
<td>No Admissions Last 30 Days</td>
</tr>
<tr>
<td>Northeast Cancer Registry Records</td>
<td>No records found</td>
</tr>
</tbody>
</table>
### Risk Characteristics

Statistical, clinical and cost risk factors are provided on this page. Please note: tooltips (?) are provided to help you understand the data. Hover over the (?) to display the tip and click on the (?) to make it disappear.

**Assign Clinical Priority & High Risk Flag**

**CARE ASSESSMENT NEEDS SCORES**

<table>
<thead>
<tr>
<th>(CAN) Scores (1-99):</th>
<th>Admission</th>
<th>Combined Event (Death or Admission)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 day Score:</td>
<td>97 (19%)</td>
<td>97 (20%)</td>
</tr>
<tr>
<td>1 year Score:</td>
<td>97 (42%)</td>
<td>97 (53%)</td>
</tr>
</tbody>
</table>

**Clinical Priority (1-10)?:** 7

**Manual High-Risk Flag?** Yes

**Risk Flag Reason?** Mild dementia

### Additional Information

- National BDOC: 3
- Polypharmacy Count: 16
- Pain Scale: 0
- OEF/OIF/OND: No
- Suicide Risk: No
- Received Homeless Services (last 12 months): NULL
- Home-Based Primary Care: No
- Home Telehealth Participant: No
- Palliative Care: No
- Hospice Care: No
- Spinal Cord Injury: NOT APPLICABLE
- Agent Orange Exposure Documented: No
- Heart Failure Re-Admission 30-day Watch: No
<table>
<thead>
<tr>
<th>Clinical Priority (1-10) [:]:</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for Clinical Priority Change [:]:</td>
<td>Medication Management Issues, Cancer, ... free text allowed</td>
</tr>
<tr>
<td>Manual High-Risk Flag [:]:</td>
<td>No</td>
</tr>
<tr>
<td>Reason for High-Risk Flag Change [:]:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- Clinical Priority
- Statistical High Risk (CAN)
- Frequent Admissions
- Frequent ER User
- Frequent PCP User
- Medication Management Issues
- Homeless
- OEF/OIF/OND
- Suicide Risk
- Cancer
- Frail Elderly
- Dialysis
- Other (type in box above)
### High Risk and Clinical Priority History

**Patient Name:** TEST VETERAN  
**SSN:** XXXX  
**DOB:** XX/XX/XXXX

<table>
<thead>
<tr>
<th>Date</th>
<th>User</th>
<th>Clinical Priority</th>
<th>Clinical Priority Reason</th>
<th>High Risk Flag</th>
<th>High Risk Flag Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/9/2015 1:46:00 PM</td>
<td>VHADENBoxT</td>
<td></td>
<td></td>
<td>Yes</td>
<td>Statistical High Risk (CAN), Homeless, Frail Elderly</td>
</tr>
<tr>
<td>12/10/2014 12:42:00 PM</td>
<td>VHADENBoxT</td>
<td></td>
<td></td>
<td>Yes</td>
<td>Goals of Care Conversation</td>
</tr>
</tbody>
</table>
### Risk Characteristics

Statistical, clinical and cost risk factors are provided on this page. Please note: tooltips (?) are provided to help you understand the data. Hover over the (?) to display the tip and click on the (?) to make it disappear.

<table>
<thead>
<tr>
<th>CARE ASSESSMENT NEEDS SCORES [?]</th>
<th>Admission</th>
<th>Combined Event (Death or Admission)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CAN) Scores (1-99):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 day Score:</td>
<td>97 (19%)</td>
<td></td>
</tr>
<tr>
<td>1 year Score:</td>
<td>97 (42%)</td>
<td></td>
</tr>
<tr>
<td>Clinical Priority (1-10) [?]</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Manual High-Risk Flag [?]</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Risk Flag Reason [?]</td>
<td>Mid dementia</td>
<td></td>
</tr>
</tbody>
</table>

### Hide Key Clinical Risk Factors (for the past 12 months) ...

- Number of ER Visits (last 12 months) [7]: 1
- Number of Hospital Discharges (last 12 months) [7]: 2
- National BDOC [7]: 3
- Polypharmacy Count [7]: 16
- Pain Scale [7]: 0
- OEF/OIF/OND [7]: No
- Suicide Risk [7]: No
- Received Homeless Services (last 12 months) [7]: NULL
- Home-Based Primary Care [7]: No
- Home Telehealth Participant [7]: No
- Palliative Care [7]: No
- Hospice Care [7]: No
- Spinal Cord Injury [7]: NOT APPLICABLE
- Agent Orange Exposure Documented [7]: No
- Heart Failure Re-Admission 30-day Watch [7]: No
This field indicates if a patient has received any VA homeless services in the last 12 months.
**Patient Information**

- Risk Characteristics
- Patient Demographics
- Secondary Contacts
- Team Information
- Outpatient Encounters
- Inpatient Discharges

**Risk Characteristics**

Hide Page Overview... 
Risk Characteristics overview and page directions will be pulled from database.

- Patient Name: Test Veteran
  - SSN: XXX
  - DOB: 00/00/000

Hide Risk Indicators... 

---

**Hide Key Cost Risk Factors (for the past 12 months) ...**

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSS Cost</td>
<td>$13,077.97</td>
</tr>
<tr>
<td>Beneficiary Travel Costs</td>
<td>$0.00</td>
</tr>
<tr>
<td>FEE Costs (Disbursed Amount)</td>
<td>No Records Found</td>
</tr>
<tr>
<td>FEE Costs (Payment Amount)</td>
<td>No Records Found</td>
</tr>
<tr>
<td>VERA Classification Last Fiscal Year</td>
<td>5: Multiple Problem</td>
</tr>
<tr>
<td>VERA Classification Current Fiscal Year</td>
<td>2: Basic Medical/Ht, Lung, GI</td>
</tr>
</tbody>
</table>

- Polypharmacy Count: 0
- Pain Scale: 6
- OEF/OF/OND: No
- Suicide Risk: No
- Received Homeless Services (last 12 months): Yes
- Home-Based Primary Care: No
- Palliative Care: No
- Home Telehealth Participant: No
- Heart Failure Dx with Admission in Last 30 Days: No Admissions Last 30 Days
- Northeast Cancer Registry Records: No records found
## Team Information

Team Information Overview Text will go here, no need to add directly to database or page just use this front end and all will populate correctly.

### PACT Team

<table>
<thead>
<tr>
<th>Team Name</th>
<th>Team Member Name</th>
<th>Position</th>
<th>Role</th>
<th>Location</th>
<th>Date Assigned</th>
<th>Office Phone</th>
<th>Digital Pager</th>
<th>Email Address</th>
<th>Receive PCAS Notifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC WILLIMANTIC LIMA &quot;WH&quot;</td>
<td>MEMBER NAME</td>
<td>MEDICAL SUPPORT ASSISTANT</td>
<td>PC ASSIGNMENT</td>
<td>689GC</td>
<td>07/12/2012</td>
<td>860-450-</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>CBC WILLIMANTIC LIMA &quot;WH&quot;</td>
<td>MEMBER NAME</td>
<td>REGISTERED NURSE</td>
<td>PC ASSIGNMENT</td>
<td>689GC</td>
<td>07/12/2012</td>
<td>860-450-</td>
<td></td>
<td></td>
<td>No (01/03/2015)</td>
</tr>
<tr>
<td>CBC WILLIMANTIC LIMA &quot;WH&quot;</td>
<td>MEMBER NAME</td>
<td>PHYSICIAN</td>
<td>PC ASSIGNMENT</td>
<td>689GC</td>
<td>07/12/2012</td>
<td>860-450-</td>
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<td>CBC WILLIMANTIC LIMA &quot;WH&quot;</td>
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<td>Yes</td>
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</table>

### Home/Community Provider Information
No Home/Community Provider Information Found

Add Home/Community Provider
### Outpatient Encounters (Last 12 Months)

**Patient Information**

**Risk Characteristics**

#### FILTER

- **Start Date:** [ ]
- **End Date:** [ ]
- **Diagnosis (keyword or ICD):** [ Select One ]
- **Type:** [ Choose Type ]

#### FILTER

- **Start Date:** [ ]
- **End Date:** [ ]
- **Diagnosis (keyword or ICD):** [ Select One ]
- **Type:** [ Choose Type ]

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Service Line</th>
<th>Location</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/24/2014</td>
<td>Name</td>
<td>Diagnostic</td>
<td>CONNECTICUT HCS</td>
<td>108</td>
<td>LAB DIV 689 OOS ID 108</td>
</tr>
<tr>
<td>01/28/2014</td>
<td>Name</td>
<td>Specialty Care</td>
<td>CONNECTICUT HCS</td>
<td>330</td>
<td>HEM ONC INFUSION CHAIR 2 WHAV</td>
</tr>
<tr>
<td>01/28/2014</td>
<td>Name</td>
<td>Ancillary</td>
<td>CONNECTICUT HCS</td>
<td>160</td>
<td>INPT PHARM ADMISSION WHAV-X</td>
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<td>01/28/2014</td>
<td>Name</td>
<td>ER</td>
<td>SMITH HOSPITAL</td>
<td>786.05</td>
<td>SHORTNESS OF BREATH</td>
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<td>01/31/2014</td>
<td>Name</td>
<td>Diagnostic</td>
<td>CONNECTICUT HCS</td>
<td>108</td>
<td>LAB DIV 689 OOS ID 108</td>
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</tbody>
</table>

2014
## Inpatient Discharges (Last 12 Months)

Hide Page Overview...  
Team Information Overview Text will go here, no need to add directly to database or page just use this front end and all will populate correctly.

Patient Information:
- **Risk Characteristics**
- **Patient Demographics**
- **Secondary Contacts**
- **Team Information**

<table>
<thead>
<tr>
<th>Discharge Date</th>
<th>Facility Location</th>
<th>Discharge Diagnosis</th>
<th>Discharge Case Manager/Nurse</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/05/2015</td>
<td>WEST HAVEN</td>
<td>188.4: MALIGNANT NEOPLASM OF POSTERIOR WALL OF URINARY BLADDER</td>
<td>PROVIDER NAME</td>
<td>VA</td>
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<tr>
<td>12/12/2014</td>
<td>SMITH HOSPITAL</td>
<td>458.0: ORTHOSTATIC HYPOTENSION</td>
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<td>FEE</td>
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<td>08/01/2014</td>
<td>WEST HAVEN</td>
<td>997.5: URINARY COMPLICATIONS, NOT ELSEWHERE CLASSIFIED</td>
<td>PROVIDER NAME</td>
<td>VA</td>
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<td></td>
<td></td>
<td>188.4: MALIGNANT NEOPLASM OF</td>
<td></td>
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</table>
### Health Factors (Last 12 Months)

Team Information Overview Text will go here, no need to add directly to database or page just use this front end and all will populate correctly.

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Health Factor Type</th>
<th>Comment</th>
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<tbody>
<tr>
<td>11/7/2014 8:30</td>
<td>HIV TEST - DECLINED</td>
<td></td>
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<tr>
<td>11/7/2014 9:30</td>
<td>NOT REGISTERED FOR MHV</td>
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<tr>
<td>11/14/2014 11:10</td>
<td>V1 - ADVANCE DIRECTIVE NOT AT VAMC</td>
<td>patient will bring in a copy at next visit</td>
</tr>
<tr>
<td>1/15/2015 15:25</td>
<td>NEGATIVE - HAS STABLE HOUSING</td>
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</tr>
<tr>
<td>Medication</td>
<td>Dosage</td>
<td>Med Start Date</td>
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<tr>
<td>---------------</td>
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<tr>
<td>ZOLPIDEM</td>
<td>10 MG</td>
<td>10/1/2014 10:22:00 AM</td>
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<tr>
<td>FERROUS SULFATE</td>
<td>325 MG</td>
<td>9/26/2014 12:02:20 PM</td>
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<tr>
<td>GABAPENTIN</td>
<td>300 MG</td>
<td>2/25/2013 1:13:41 PM</td>
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<tr>
<td>KETOCONAZOLE</td>
<td>2 %</td>
<td>10/7/2013 2:47:04 PM</td>
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<tr>
<td>KETOCONAZOLE</td>
<td>2 %</td>
<td>10/16/2014 2:18:31 PM</td>
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<tr>
<td>METFORMIN</td>
<td>500 MG</td>
<td>10/1/2014 7:05:37 AM</td>
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<td>TRAMADOL</td>
<td>50 MG</td>
<td>10/14/2014 10:20:14 AM</td>
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<td>LORAZEPAM</td>
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<td>2/25/2013 1:13:42 PM</td>
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<td>1 MG</td>
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</table>
Patient Information

Risk Characteristics
Patient Demographics
Secondary Contacts
Team Information

Outpatient Encounters
Inpatient Discharges
Labs and Immunizations
Health Factors
Vital Signs
Medications

Patient Consults

TASKS and REMINDERS

Patient Consults

Hide Page Overview...  
Consults for patient, select consult for more details.

Patient Name: Test Veteran  
SSN: XXXX  
DOB: 00/00/0000

Filter:

Filter By CPSR Status:  
-- Choose --  
Go

Filter By Request Date:  
Start Date:  
End Date:  
Go

Clear Filter

<table>
<thead>
<tr>
<th>To Request Service Name</th>
<th>Request Date</th>
<th>Urgency</th>
<th>CPSR Status</th>
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<tbody>
<tr>
<td>O/HEMATOLOGY OPT</td>
<td>02/06/2013</td>
<td>GMRCURGENCEY - ROUTINE</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>O/GASTRO COLONOSCOPY</td>
<td>02/06/2013</td>
<td>GMRCURGENCEY - ROUTINE</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>EYEGlass REQUEST - OMAHA</td>
<td>02/19/2013</td>
<td>GMRCURGENCEY - ROUTINE</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>PROSTHETICS REQUEST - OMAHA</td>
<td>03/26/2013</td>
<td>GMRCURGENCEY - ROUTINE</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>O/OCCUPATIONAL THERAPY</td>
<td>03/26/2013</td>
<td>GMRCURGENCEY - ROUTINE</td>
<td>COMPLETE</td>
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<tr>
<td>O/PHYSICAL THERAPY OUTPATIENT</td>
<td>03/26/2013</td>
<td>GMRCURGENCEY - ROUTINE</td>
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<td>04/05/2013</td>
<td>GMRCURGENCEY - ROUTINE</td>
<td>COMPLETE</td>
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<td>PROSTHETICS REQUEST - OMAHA</td>
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<tr>
<td>O/GASTRO COLONOSCOPY</td>
<td>05/07/2013</td>
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<tr>
<td>O/GENERAL SURGERY HEMORRHoids</td>
<td>05/07/2013</td>
<td>GMRCURGENCEY - ROUTINE</td>
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<td>O/ENT OTHER</td>
<td>05/07/2013</td>
<td>GMRCURGENCEY - WITHIN 1 MONTH</td>
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<td>O/OPHTHALMOLOGY OPT OTHER</td>
<td>06/25/2013</td>
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<td>GMRCURGENCEY - ROUTINE</td>
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## Consults

**Filter List By Patient:**

**Filter By Name:**

**Search By Last 4 SSN:**

**Filter By CPRS Status:**

**Filter By Request Date:**

**Clear Filter**

<table>
<thead>
<tr>
<th>Last 4 SSN</th>
<th>Patient Name</th>
<th>High Risk Flag</th>
<th>Request Date Time</th>
<th>Request Service Name</th>
<th>CPRS Status</th>
<th>Team</th>
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<td>ACTIVE</td>
<td>OMA PACT 003 (636)</td>
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<td>Select</td>
<td>1234</td>
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<td>O/NON VA CARE PAIN REFERRAL</td>
<td>ACTIVE</td>
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<td>Select</td>
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### Manage Patients

**Hide Page Overview...**

This will be a description/overview of the Manage Patients page. This is database driven so any changes will be on the database side, no need to update the application. Neat! Test

<table>
<thead>
<tr>
<th>Filter Panel By Patient(s) or Appointment:</th>
<th>Or Filter Panel Based on Risk Characteristics:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Search By Name:</strong></td>
<td><strong>Manual High Risk Flag</strong></td>
</tr>
<tr>
<td><strong>Search By Last 4 SSN:</strong></td>
<td><strong>Top CAN Scores (1yr. death or admission model)</strong></td>
</tr>
<tr>
<td><strong>Search By Next Appointment Date:</strong></td>
<td><strong>Top Clinical Priority</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Received Homeless Services (last 12 Months)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Suicide Risk</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Home-Based Primary Care</strong></td>
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<td><strong>Home Telehealth Participants</strong></td>
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<table>
<thead>
<tr>
<th>Tasks</th>
<th>Active &amp; Pending</th>
<th>Consults</th>
</tr>
</thead>
<tbody>
<tr>
<td>📋</td>
<td>📋</td>
<td>📋</td>
</tr>
</tbody>
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**Last 4 SSN** | **Patient Name** | **CAN** | **Clinical Priority** | **High Risk** | **Risk Type** | **Last Appointment** | **Next Appointment** |
<table>
<thead>
<tr>
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<td>28 Sep 2014</td>
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## Tasks

**Filter Tasks By:**

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<th>Status</th>
<th>Assigned To</th>
<th>Task Due Date</th>
<th>Task Type</th>
<th>Task Requested Date</th>
<th>Last Follow-Up Date</th>
<th>Task Priority</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JANE DOE</td>
<td>03/25/2015</td>
<td>Call Patient</td>
<td>03/19/2015</td>
<td>03/20/2015</td>
<td>URGENT</td>
<td>Complete</td>
</tr>
<tr>
<td></td>
<td>JOHN DOE</td>
<td>03/24/2015</td>
<td>Check Lab Results</td>
<td>03/19/2015</td>
<td></td>
<td>Medium</td>
<td>On Hold</td>
</tr>
<tr>
<td></td>
<td>JANE DOE</td>
<td>03/25/2015</td>
<td>Letter to Patient</td>
<td>03/19/2015</td>
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<td>HIGH</td>
<td>Pending</td>
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<tr>
<td></td>
<td>JOHN DOE</td>
<td>03/23/2015</td>
<td>Check Screening Results</td>
<td>03/19/2015</td>
<td></td>
<td>Low</td>
<td>On Hold</td>
</tr>
</tbody>
</table>

**Clear Filter**
Dear Reminder Person,

This is a notification from the Patient Care Assessment System that you have TASKS DUE in the next three days.

- **2 URGENT TASKS (please click here to address these)**
- **3 Medium Priority Tasks**

Of these,

- **2 is Call Patient**
- **1 is Service F/U**
- **1 is Letter to Patient**

Please use the direct links above, or [CLICK HERE TO ACCESS PCAS](#).

(Please note: you must be on the VA network)

Sincerely,
Patient Care Assessment System

**NOTICE:** THIS EMAIL IS INTENDED ONLY FOR THE ORIGINAL RECIPIENT AND SHOULD NOT BE COPIED OR FORWARDED.
QUERY FUNCTIONALITY

• Appointment Date Range
• Diagnosis Lookup
• Risk Characteristics or Group-Level Risk
• Combine Clinical Criteria – beyond page filters
POLL

What PCAS function is most important to you?
A. View VA and Non-VA data in one summary location.
B. Quickly locate patients in a panel based on various risk characteristics or perform advanced queries.
C. Team-based care management.
D. Send care planning notes to CPRS.
E. Something else.
TEAM

- Steve Krysiak
- Sophie Lo
- SP Thakur
- Tom LaFontaine
- Stephan Fihn, MD MPH

- ABI Colleagues and Collaborators
- PACT Nurse and Provider Members of Requirements Team
- ONS and PCS Implementation Leadership Team
- PCAS Champions
THANK YOU
QUESTIONS?

Stephan D. Fihn, MD, MPH
Stephan.Fihn@va.gov

Tamara L. Box, PhD
Tamara.Box@va.gov

PCAS URL:  https://secure.vssc.med.va.gov/PCAS